CONSTRUCTION NEWS

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CONTENTS.

CONSTRUCTION NEWS:
Plans and Specifications on File..... 75
List of Contracts Pending..... 75
Railways 75
Electric Railways 75
Light and Power Plants..... 76
Bridges 76
Buildings 77
Water Supply and Irrigation..... 78
Sewerage 79
Garbage Disposal 79
Streets and Roads 79
Manufacturing Plants 80
Miscellaneous Contracts 80
Contract Prices 81
U. S. Possessions and Cuba..... 82
Engineering Material Prices..... 82
EXAMINATIONS 82
PROPOSALS 82

CONSTRUCTION NEWS.

Plans and Specifications on File.

(denotes that this work is advertised in Engineering News.)*

The following plans (P.) and Specifications (S.) are on file and may be seen at office of The Engineering News Publishing Co., 220 Broadway, New York.

Bids close.	Work.	See issue.
3-13	Dredging, Norfolk, Va.....(S.)	2-25
3-20	Quay wall, Portsmouth, N.H.(S.)	2-25
3-20	Hospital, Annapolis, Md....(S.)	2-25
3-22*	Incineration plant, Easton, Pa.(S)	3- 4
3-24	Lighting, North Chicago, Ill..(S)	3-11
3-27	Power machinery, New York.(S.)	3- 4
3-31	Incineration plant, Milwaukee Wis. .....(S)	3-11

List of Contracts Pending.

LIGHT, HEAT AND POWER PLANTS.

3-13	Power-plant, Ft. Yellowstone, Wyo	3- 4
3-15	Wiring, Dauphin, Man.....	3- 4
3-15	Lighting, Charlotte, N. C.	3- 4
3-15	Electrical equip., New York....	3- 4
3-16	Light plant, etc., Berlin, Md...	2-25
3-18	Power-house, National Military Home, Ohio	3- 4
3-19	Lighting system, West Point, N. Y.....	
3-22	Elec. supplies, Wash., D. C....	2- 4
3-24	Power-house, etc., Poughkeepsie, N. Y.....	3- 4
3-23*	Lighting plant, etc., Prague, Okla	3-11
3-24	Lighting, North Chicago, Ill.....	3-11
3-24	Power house, etc., Kings Park, N. Y.	3- 4
3-27	Power machinery, New York....	3- 4
3-30	Heating plants, Ft. McPherson, Ga.	3-11
4-13*	Lighting, Portsmouth, Va.	3-11

BRIDGES.

3-11	Bridge work, Reading, Pa.....	3-11
3-13	Bridge, Cleveland, Ohio.....	2-25
3-15	Bridges, Coshocton, Ohio.....	2-25
3-15	Bridge, South Pasadena, Cal....	3- 4
3-15	Bridge, Los Angeles, Cal.....	3- 4
3-15	Bridge repair, Allentown, Pa....	3- 4
3-15	Bridge, Geneva, Ill.....	3-11
3-15	Bridge, Stratford, Ohio.....	3-11
3-17*	Bridge, Wanaque, N. J.....	3- 4
3-18	Bridges, Nebraska City, Neb....	3- 4
3-19	Bridges, Madison, Neb.....	3-11
3-22	Bridge, Pottsville, Pa.....	3-11
3-25	Bridge, Trotwood, Ohio.....	3-11
3-25*	Bridge, Camden, S. C.....	3- 4
3-27	Bridge work, Cleveland, Ohio...	3- 4
3-27	Bridge bonds, Crown Point, Ind.	3- 4
3-29	Bridge approaches, Toledo, Ohio.	3-11
4- 1	Bridge approach, Westmoreland, Kan	3-11
4- 3	Bridge, Cleveland, Ohio.....	3-11
4- 5	Bridge, etc., Harrisonburg, La..	2- 4
4- 6	Bridges, Washington C. H., Ohio.	3-11
4- 8	Bridge, Manhattan, Kan.....	3- 4

BUILDINGS.

3-15	Stone work, Wash., D. C.....	3- 4
3-15	Masonic Temple, Flint, Mich....	2-25
3-15	Schools, New York	3- 4
3-16	Hospital, Norfolk, Va.....	3- 4
3-16	Boilers, ice plants, etc., Philippines (U. S. Poss.).....	3-11
3-17	City hall, Visalia, Cal.....	3-11
3-17	School, Le Roy, N. Y.....	3- 4
3-17	Lock houses, Pittsburg, Pa.....	2-25
3-18	Market, Toluca, Mexico.....	3- 4
3-20	Bricks, Edmonton, Alta.....	3- 4
3-20	School, Prince Albert, Sask.....	3-11
3-20	Hospital, Annapolis, Md.....	2-18
3-22	Post-office, Dixon, Ill.....	2-18
3-22	Heating, Los Angeles, Cal.....	3- 4
3-22*	Building, Ft. Monroe, Va.....	3- 4
3-22	School, Wilkes-Barre, Pa.....	3- 4
3-24	Buildings, Burrwood, La.....	3- 4
3-25*	Dwelling, Baltimore, Md.....	3- 4
3-25*	Post-office, Boulder, Colo.....	2-25
3-26*	Vacuum system, Atlanta, Ga.....	3-11
3-29	Shop repairs, Fort Dade, Fla. (Mfg. Pl.)	3-11
3-30*	Toilet rooms, etc., Burlington, Ia	3-11
3-31	Post-office, Ruston, La.....	3- 4
4- 1	Factory, Cleveland, Ohio (Mfg. Pl.)	3-11
4- 1	Library, Ferndale, Cal.....	3-11
4- 2*	Assay bldg. foundation, New York.	3- 4
4- 5	Post-office, Dothan, Ala.....	3- 4
4- 5	Jail, Lebanon, Ind.....	2-25
4- 6	School, Cincinnati, Ohio.....	3-11
4- 7	Post-office, Marion Ohio.....	3- 4
4-12	Assay office (superstr.), New York	3-11
4-26	Buildings, North Chicago, Ill....	3-11

WATER-WORKS.

3-13	Water-turbines, Fort Yellowstone, Wyo	3- 4
3-13	Valves, etc., Winnipeg, Man.....	3-11
3-15	Pumping engine, Waukegan, Ill..	3-11
3-15	Boilers, Montgomery, Ala.....	3- 4
3-15	Gate-house, Boston, Mass.....	3- 4
3-15	Water-works, Wichita, Kan.....	1-21
3-15*	Filtration plant, Philadelphia, Pa	2-18
3-16	W.-Wks., Berlin, Md.....	2-18
3-16	Cast-iron pipe, Toronto, Ont.....	3-11
3-16*	Steam pumps, etc., Dowagiac, Mich	3-11
4- 5	Cast-iron pipe, Cheyenne, Wyo..	3-11
3-17	Reservoir, Baltimore, Md.....	3-11
3-18*	Siphon, New York.....	2-25
3-18	Tanks, Fort Dade, Fla.....	3- 4
3-19*	Water extensions, Fort Andrews, Mass	2-25
3-22*	Tunnel, New York.....	2-25
3-23	Water-works, Burlington, Ont...	3- 4
3-23*	Water-works, etc., Prague, Okla.	3-11
3-23*	Cast-iron pipe, Oak Park, Ill.....	3-11
3-25*	Water-works, Berlin, Md.....	3-11
3-25	Water-works, Stevensville, Mont.	2-25
3-30	Tunnels, New York, N. Y.....	3-11
4- 2*	Pumping system, Platteville, Wis	3-11
5- 5	Pumping machinery, Petaluma, Cal	2-11
4- 6*	Pumping engine, Jackson, Miss..	3-11
4- 6*	Aqueduct, New York.....	3-11
4- 7	Water-works, Weyburn, Sask....	3-11

SEWERS.

3-12	Sewers, Dayton, Ohio.....	3- 4
3-12	Sewer, Des Moines, Iowa.....	3-11
3-12*	Sewers, Louisville, Ky.....	3- 4
3-13	Sewer, Fort Riley, Kan.....	3- 4
3-13	Pipe sewers, Clermont, Ind.....	3- 4
3-15	Sewers, Aberdeen, S. Dak.....	3- 4
3-15	Sewerage, Ladysmith, B. C.....	3-11
3-15	Sewer, Piqua, Ohio.....	3-11
3-16	Sewer, Normal City, Ind.....	3- 4
3-17	Manhole heads and covers, Brooklyn, N. Y.....	3-11
3-18	Sewers, Cleveland, Ohio.....	3-11
3-19*	Sewer, Red Bank, N. J.....	3-11
3-19*	Trunk sewer, Louisville, Ky.....	3- 4
3-19*	Sewer extensions, Fort Banks, Mass	2-25
3-20	Terra-cotta pipe, Roanoke, Va...	3-11
3-22*	Sewers, Williston, N. Dak.....	3-11
3-22	Sewer system, Wayne, Neb.....	2-18
3-26	Sewers, St. Bernard, Ohio.....	3- 4
3-29	Sewer, etc., Angola, Ind.....	3- 4
3-30*	Sewer, Watertown, N. Y.....	3-11
4- 2*	Purification plant, Millville, N.J.	2-25
4- 7	Sewers, Birmingham, Ala.....	3- 4

STREETS AND ROADS.

3-11	Roller repairs, Brooklyn, N. Y..	3-11
3-12	Road impvt., Elkton, Md.....	3-11
3-12	Improving drive, New York.....	3- 4
3-12	Pavement, Beaver Dam, Wis.....	3- 4
3-15	Grading, etc., Fremont, Ohio.....	3-11
3-15	Paving, New London, Conn.	3-11
3-15	Paving, Pauls Valley, Okla.....	2-25
3-16*	Street impvt., Bayonne, N. J....	2-25
3-16	Grading, etc., Bryan, Ohio.....	3- 4
3-16*	Road, Cape May, N. J.....	3- 4
3-18*	Paving, Geneva, N. Y.....	3- 4
3-18	Stone crusher, etc., Prince Albert, Sask	3- 4
3-19*	Grading, etc., Kingston, N. Y...	3- 4
3-19	Road, Tipton, Ind.....	3- 4
3-20	Road impvt., Cleveland, Ohio....	2-18
3-22	Paving, Paris, Tex.....	3-11
3-22	Pavement, Mason, Mich.....	3-11
3-22	Street impvt., Ravenna, Ohio....	3-11
3-22	Macadam, Ashtabula, Ohio.....	3- 4
3-23	Sidewalks, etc., Fort Q. A. Russell, Wyo	3- 4
3-25	Sidewalks, Wahpeton, N. Dak....	3-11
3-26*	Pavement, Bridgeport, Conn.....	3-11
3-26	Road impvt., Cincinnati, Ohio...	3-11
3-26	Road impvt., St. Bernard, Ohio..	3- 4
3-29	Grading, etc., Bowling Green, Ohio	3-11
3-30*	Roadway, East Liverpool, Ohio..	3-11
3-30*	Pavement, Watertown, N. Y.....	3- 4
3-31*	Paving, Springfield, Ohio.....	3-11
4- 5*	Macadam, etc., Graham, N. C....	3-11
4- 5	Roads, Danville, Ind.....	3-11
4- 5	Grading, etc., Berea, Ohio.....	3-11
4- 6	Road, Crawfordsville, Ind.....	3-11
4- 6	Road, Vincennes, Ind.....	3-11
4- 8	Road, Logansport, Ind.....	3-11

MISCELLANEOUS.

3-12	Iron fence, St. Paul, Minn.	2-25
3-12	Repairing pier, etc., New York..	3- 4
3-13	Dredging, Norfolk, Va.	2-25
3-15	Sprinkling trucks, New York..	3- 4
3-15*	Fire Dept. supplies, Anadarko, Okla.	3- 4
3-15	Gate-house, Boston, Mass.	3- 4
3-16	Naval Supplies, Wash., D. C....	2-25
3-17*	Lock gates, Brownsville, Pa.....	2-18
3-17	Mooring stones, Portland, Me...	2-11
3-18	Wire fence, Ft. Hamilton, N. Y..	2-25
3-18	Stone crusher, etc., Prince Albert, Sask	3-11
3-19	Ditch, Vandalia, Ill.....	3-11
3-20	Quay wall, Portsmouth, N. H..	2-25
3-22	Incineration (Garbage) plant, Easton, Pa.	3- 4
3-22	Signal system, Vancouver, B. C..	3-11
3-22	Offal disposal (Garbage), Newton, Mass	3-11
3-23	Ditch, Bluffton, Ind.....	3-11
3-24*	Lock machinery, Wheeling, W.Va.	2-25
3-26*	Creek impvt., Wilmington, Del..	3- 4
3-26*	Rock removal, New York	3- 4
3-26*	Steel, Sault Ste. Marie, Mich....	3-11
3-26*	Vacuum cleaning system, Atlanta, Ga	3-11
3-27	Monuments, Terre Haute, Ind...	3- 4
3-29	Wireless station, Ft. Riley, Kan..	3-11
3-30*	Dam, Sault Ste Marie, Mich....	3- 4
3-30	Light-house, etc., Cleveland, O..	3- 4
3-30	Wire fence, Ft. Moultrie, S. C...	3-11
3-30*	Tunnel, Boston, Mass.....	3-11
3-31	Timber, Ottawa, Ont.....	3-11
3-31	Riprap, etc., Wash., D. C.....	3-11
3-31	Incineration plant, Milwaukee, Wis. (Garbage)	3-11
3-31	Barge canal, Albany, N. Y.....	3-11
4- 2	Light vessel, Wash., D. C.....	3- 4
4- 3	Walls and gates, Knoxville, Tenn.	3-11
4- 5*	Light-house, Wilmington, Del....	3-11
4- 7*	Light-house foundation, Wilmington, Del.	3-11

EXAMINATIONS.

3-15	W.-Wks. Supervisor, Minneapolis, Minn	2-15
3-15	City Engr., Wetaskiwin, Alta..	3- 4
3-17	Practical Miner, Wash., D. C..	2- 4
3-17	Aid in Zoology, Wash., D. C. ...	2- 4
3-23	City Engr., Saskatoon, Sask.....	3- 4
3-24	Asst. Chemist, Wash., D. C.....	2-25
3-27	Asst. Steam Engr., Albany, N. Y.	3-11
3-27	Chief Engr., White Plains, N. Y.	3-11
3-27	Elec. Meter Insp., Albany, N. Y..	3-11
3-27	Highway Insp., Albany, N. Y....	3-11
3-30	Asst. Curator, Wash., D. C.	3- 4
3-30	Laboratory Aid, Wash., D. C....	3- 4

FOREIGN.

4-15	Steel rails, Siam	2-25
4-15*	Motor hose wagon, China.....	2-25
4-24	Railway supplies, Chile	2-25

RAILWAYS.

ARKANSAS CENTRAL.—Company has completed surveys, it is stated, for an extension from Paris, Ark., to the new town of Scranton. The purpose of the company is to construct a line to an anthracite coal field. J. H. Wright, Fort Smith, Ark., is pres.

BEAUMONT & GREAT NORTHERN.—This line, which runs from Trinity, Tex., where it taps both the Missouri, Kansas & Texas Ry. and the International & Great Northern R. R., to Livingston, Tex., where it taps the Houston East & West Texas Ry., will be extended from Livingston to Beaumont, its natural destination, and is to be started soon. William Carlisle, Atchison, Kan., is Pres.; C. J. Rogan, Onalaska, Tex., is Vice-Pres. and Gen. Supt. Noted on Jan. 14.

CANADIAN NORTHERN.—The Alberta Government has agreed to guarantee the bonds of this company to the extent of $13,000 per mile at 4% for the following branches in the province: Strathcona to Lethbridge, via Calgary, 355 miles; branch from this line to Vegreville, 40 miles; from Bittern Lake to the junction of the Bow and Belly Rivers, 50 miles; from McLeod to the Montana boundary, 110 miles; a branch from this line to the western boundary of the province, 20 miles; from Cardston to the western boundary, 35 miles; from Vermilion to Whiteford Lake, 40 miles; from Morinville east, 10 miles; from Edmonton towards Peace River, 50 miles; from Morinville to Athabasca Landing, 65 miles; from Content to Red Deer, 60 miles. Of these 125 miles must be completed this year.

Company is reported to have ordered a survey from the Yellowhead Pass, in the Rocky Mountains, along the North Thompson and Fraser Rivers to New Westminster, B. C.

CLEAR LAKE NORTHERN.—This company, which was organized some months ago, has decided to commence active operations soon. The following officers have been elected: H. B. Chase, Pres.; Wm. F. Tevis and F. Bonneau, Vice-Presidents; Wm. L. Gerstle, Secy. and Treas. Directors: Henry T. Scott, Wm. L. Gerstle, Wm. F. Tevis and H. B. Chase, of San Francisco. The road is to be a broad gage line, connecting with the Northwestern Pacific at Pieta in Mendocino County and takes a general northeasterly route through Highland Springs, Kelseyville and Lakeport. The first stretch will be 30 miles long, and will open up a large portion of Lake County, which has been without transportation facilities.

CUMBERLAND RIVER & NASHVILLE.—F. S. Parrigin, Engr., Mill Springs, Ky., advises us that arrangements have about been completed for the renewal of work on the Cumberland River & Nashville Railroad, which is building from Tateville, Ky., to Monticello. As money is available, the line will be continued to Clarksville, Tenn., a distance of over 200 miles, and to Corbin, Ky., a distance of about 28 miles. The company will be in the market soon for about 2,000 tons of 70-lb. steel rails and a locomotive of 65 tons, 4-6-0 type. Capital, $322,000. James Denton, of Somerset, Ky., Pres.; F. S. Parrigin, Engr. J. H. Shearer, W. R. Cross, J. L. Shadowan, I. C. Ramsey, of Monticello, Ky., are interested.

GRAND TRUNK PACIFIC.—Company has made application for permission to build the following branch lines in Alberta: From the main line near Pembina Crossing southerly to the headwaters of the Little Pembina River, 100 miles; from a point on the main line near the Embarras River towards the McLeod River, 25 miles; from a point on the company's authorized line between Calgary and Coutts, through Pincher Creek to the western boundary of Alberta, about 106 miles.

The Alberta Government has agreed to guarantee the bonds of this company to the extent of $13,000 per mile at 4% for the following branches in the province: Wainwright to Coutts, via Calgary, 451 miles; from a point on this line between Calgary and Lethbridge to McLeod, 40 miles. The agreement provides 150 miles must be completed during 1909.

IOWA & SOUTHWESTERN.—This company has been organized in Iowa, with $300,000 capital. Office is at Clarinda, Iowa. The company proposes to build a line from Clarinda southwest via College Springs to Blanchard, in Page County, about 18 miles. Preliminary surveys and estimates of the cost of construction have been made. W. F. Farquhar is Pres., College Springs, and J. N. Miller, Vice-Pres., at Clarinda; J. H. Walkinshaw, of Blanchard, Second Vice-Pres.; I. H. Taggart, of College Springs, Treas.; A. F. Galloway, of Clarinda, Secy. Directors are as follows: Ed. F. Rose, G. William Richardson, J. N. Miller, Al. Davidson, A. F. Galloway, G. E. Clayton and J. M. Rumbaugh, Clarinda; W. M. Dewhurst, O. C. Wetmore, E M. Hensleigh and J. H. Walkinshaw, of Blanchard; and A. M. Abbott, J. A. McKinley, I. H. Taggart and William S Farquhar, of College Springs. The capitalization of the new road will be in the hands of C. B. Judd, of Albia, Iowa, representing the Engineering Construction & Securities Co., of Albia, under whose direction the preliminary surveys were made.

LA FAYETTE R. R.—This company has been chartered to build a line four miles long from La Fayette, Ga., on the Central of Georgia Ry., to a point on the Chattanooga Southern. Capital, $50,000. T. J. Kauffman and others are incorporators.

MEXICO.—The San Jose Lumber Co., of Manzanillo, Mex., which was recently organized to take over the San Jose de la Rosa ranch northeast of that port, will build a narrow-gage railroad from Manzanillo to the property, a distance of 35 kilometers. Application for the railroad concession has been made, and the construction of the roadbed is now in progress. The line will have a maximum grade of six per cent. A. A. Tripp, of North Vernon, Ind., is Pres. of the company; Col. J. R. Goodrich, of the Wisconsin Central Ry., Vice-Pres.; R. F. Horton, Gen. Mgr., and J. F. Ballard, Gen. Supt.

OKLAHOMA & GOLDEN CITY.—The Directors of the Oklahoma & Golden City Railroad, chartered last year with $12,000,000 capital to build from Jefferson City, Mo., to Pawhuska, Okla., recently elected the following officers: E. M. Dempsey, of Pawhuska, Pres.; J. A. Wimberly, of Pawhuska, and L. C. Lohman, of Jefferson City, Vice-Presidents; W. H. Reed, of Golden City, Secy.; W. B. Burns, of Golden City, Treas.; W. S. Hawkins, of Pawhuska, Ch. Engr.; E. E. Grinstead, of Pawhuska, General Attorney, and J. A. Grisel, of Golden City, Gen. Mgr. Survey will begin soon. Noted fully on Feb. 4.

PENNSYLVANIA.—Citizens of Delta, Pa., and nearby towns, are considering plans for building a railroad from Delta to Fawn Grove, Pa. The new road would be about seven miles long, and would open up one of the richest farming districts in York County. It is proposed that a connection be made at Fawn Grove with the New Park & Fawn Grove R. R., so that cars could be sent through to New Freedom, where connections could be made with the Northern Central Ry. (Pennsylvania R. R.). Residents of Stewartstown and Fawn Grove also favor the new road. Two committees have been appointed, one representing Delta and the other Fawn Grove. They are made up as follows: Delta committee—T. J. Brooks, W. Scott Whiteford, John W. Jones, Amos B. Harrison and Harry Hughes. Fawn Grove—John C. Wiley, H. F. Merriman, Joseph W. Anderson, B. F. Morris and Joseph A. Gehley.

WHITE OAK RY.—During the coming summer a 4-mile extension will be built for which bids will be asked within the next 30 days. S. Dixon, of Mcdonald, W. Va., is Pres.

VANCOUVER, WESTMINSTER & YUKON.—An application will be made by this company, which is controlled by the Great Northern, to the Dominion Parliament, Ottawa, Ont., at its next session, to extend the time until July, 1912, to commence construction, and until July, 1914, for the completion of the following lines which it is authorized to build: From a point in the county of Lillooet, B. C., between Anderson and Green lakes, southeast along Lillooet Lake, Lillooet River and Harrison Lake, thence southeasterly to the international boundary line at Huntington, B. C.; from a point between Lillooet and Quesnet in an easterly direction through the basin of Quesnelle Lake to Tête Jaune Cache; from a point between the Cottonwood and Willow rivers southeasterly to Barkerville; from a point on Willow River easterly to the Fraser River, then along same to Tête Jaune Cache, through the Yellow Head Pass to Edmonton, Alta.

ELECTRIC RAILWAYS.

EAST LIVERMORE, ME.—A bill has been introduced in the Maine Legislature incorporating the Androscoggin R. R. Co. This company proposes to build a street railway in the towns of East Livermore, Livermore and Turner, from the terminus of the Auburn & Turner R. R. in Turner to some convenient point in East Livermore. Capital stock, $300,000. Incorporators: Hewitt M. Lowe, of Turner; John A. Jones and Albert M. Kavanaugh, of Lewiston, Me.; Harry Manser, of Auburn, Me.; Frank W. Brigham, Boston.

OSWEGO, N. Y.—The City Traction Co. has been incorporated with a capital stock of $550,000 to take over, reorganize

and operate the property of the Oswego Traction Co., bid in at foreclosure sale by the Beebe Syndicate, of Syracuse, last fall. Also to build and operate an electric line from Oswego to Seneca Hill, Oswego County, a distance of ten miles. Directors: C. B. Benson, of Minetto, N. Y.; William Nottingham and Clifford D. Beebe, Syracuse; Harold C. Beatty, Skaneateles, N. Y.

GENEVA, N. Y.—A hearing was given recently at Albany before Deputy Attorney-General Letchworth and Deputy State Engineer Degraff, as a committee of the State Land Board, on an application of the Geneva, Waterloo, Seneca Falls & Cayuga Lake Traction Co. for a grant of land under the waters of Cayuga Lake, on which to construct an embankment to carry the railway across the northern end of the lake between Auburn and Geneva. The proposed extension, it is claimed, provides one of the few remaining links missing in the proposed connecting electric line from Albany to Buffalo. The embankment desired is to be a mile in length and will cost between $180,000 and $200,000. It is planned to have openings in the embankment for small boats and for the barge canal. Officers of the company, with counsel, urged favorable action on the application. There was no opposition. W. C. Gray is Gen. Mgr., Seneca Falls, N. Y.

BEAVER FALLS, PA.—We are officially informed that the Beaver Falls & New Castle St. Ry. Co., which will construct a line 22 miles long, connecting Beaver Falls, Koppel, Wampum, West Pittsburg and New Castle, is not ready to let construction contracts. C. Strohecker, Zelienople, Pa., is Gen. Mgr.

BEDFORD, PA.—An ordinance has been passed by the City Council granting the Altoona, Hollidaysburg & Bedford Springs Ry. Co. a franchise for a street railway over certain streets of Bedford. The company plans to build an electric railway connecting the three cities named in the title. About 18 miles, from Altoona to Roaring Springs, are under construction. Right-of-way, it is stated, is practically secured. Fully noted on Jan. 14. Frederick Patterson, Altoona, is Ch. Engr.

COATESVILLE, PA.—C. Edgar Titzel, Mgr. Conestoga Traction Co., Lancaster, informs us that the Christiana & Coatesville St. Ry. Co. is going to complete the line between Coatesville and Christiana, the line between Coatesville and Parkesburg having been finished several years ago. There will be four miles of new track to construct. This work will be under the supervision of the Conestoga Traction Co. and will be done by its own men.

CHRISTIANSBURG, VA.—The Montgomery Traction Co., Christiansburg, proposes to build an electric railway from Christiansburg to Cambria. It has not yet been decided when contracts will be awarded. Capital stock, authorized, $25,000. C. A. Johnston, Christiansburg, Pres.; E. S. Hagan, Vice-Pres. and Gen. Mgr.; C. X. Wade, Secy. and Treas., all of Christiansburg.

LOUISVILLE, KY.—It is stated that the Kentucky Central Traction Ry. Co., of Louisville, G. J. Lampton, Pres. and Gen. Mgr., has not yet decided when contracts will be let for the construction of a 40-mile electric road, which is to connect West Point, Elizabethtown, Howard, Vine Grove and Hogdonville. Capital, $500,000.

INDIANAPOLIS, IND.—The Capital Circuit Traction Co., with headquarters at 1019 Law Bldg., Indianapolis, plans to build an electric railway connecting Greenfield, Fortville, Noblesville, Sheridan, Lebanon, Advance, Jamestown, North Salem, Danville, Clayton, Hall, Mertansville, Trafalgar, Franklin, Marietta, Shelbyville and Fountaintown. It has not yet been decided when contracts for the construction of the railway will be awarded. J. N. Crabb, Law Bldg., Indianapolis, is Pres.; J. W. Trotter, Danville, Ind., Vice-Pres.; C. E. Worth, Secy. and Treas.; J. A. Shafer, 3710 N. Illinois St., Indianapolis, is Ch. Engr.

SANDWICH, ILL.—A 50-year franchise has been granted by City Council to the De Kalb Midland Railway, which will build an electric railway from Somonauk through Sandwich and Waterman to De Kalb.

WHEATON, ILL.—A company, under the title of the Du Page R. R. Co., will build an electric railway from Wheaton to Naperville and Plainfield. Capital stock, $25,000. Asa M. Royce is Pres.; Alvin Scott, Vice-Pres.; W. F. Keeney, Secy. and Treas., all of Naperville, Ill.

MATTOON, ILL.—The Mattoon, Shelbyville, Pana & Hillsboro Traction Co. has secured franchises to build an electric railway in and between Mattoon, Shelbyville, Tower Hill, Nokomis, Windsor and Irving. Capital stock, $5,000. W. R. Patton is Pres., Charleston; J. B. Craig, Mattoon, Secy.; J. W. Yantis, Shelbyville, Treas.

SIOUX CITY, IOWA.—At a recent meeting of land owners in central Woodbury County, held at Climbing Hill, steps were taken to build an electric railroad from Sioux City through Climbing Hill and Anthon to Ida Grove. Payne Sargison, of Luton, and Martin Uhl, of Bronson, and C. R. Purcell, of Cincinnati, Ohio, who owns a large body of land in this county, are interested. It was proposed that the line be known as the Sioux City, Climbing Hill & Ida Grove Electric Ry. Co. A temporary organization was effected, C. S. Malcomb, of Climbing Hill, being elected Pres.; Payne Sargison, of Luton, Treas., and W. H. Steinhauer, of Climbing Hill, Secy. Arrangements have been made to secure T. G. Henderson, of Sioux City, as attorney. He will be present at the next meeting to be held soon, when it is expected a definite line of action will be adopted.

BURLINGTON, IOWA.—The Burlington-Bonaparte Interurban Ry. Co. has plans under way for the financing of this proposed interurban railway. It will connect Burlington, Augusta, Denmark and Fort Madison. J. A. Johnson, Bonaparte, is Pres.; J. Bland, Burlington, Vice-Pres.; E. E. Egan, Burlington, Secy. and Treas.

PITTSBURG, KAN.—The City Council has granted the Joplin & Pittsburg Ry. Co. a 30-year franchise for a street railway in Pittsburg. As noted on Feb. 4, this company has been granted a franchise in Cherokee by the City Council for building its line from Weir Junction into Cherokee, a distance of five miles. It is to be constructed within six months. R. W. Harris, Pittsburg, Kan., is Gen. Mgr. Noted on May 7, 1908.

MISSOULA, MONT.—The Missoula St. Ry. Co. has been incorporated in Washington to build an electric street railway in Missoula. The City Council has just granted the company a 50-year franchise. Capital stock, $100,000. Directors: J. R. Wharton, W. A. Clark, Jr., and W. M. Bickford, Butte; S. R. Inch, Missoula, and C. B. McBroom, Spokane, Wash. Noted on Feb. 4.

LAWTON, OKLA.—James M. Sims and C. L. Carson, St. Louis, Mo., and W. D. Todd, Warren, Pa., are planning to build an electric railway to connect Lawton and its additions with Fort Sill and a nearby summer resort in the mountains, it is stated. A franchise will be asked for at once and active work will begin within 60 days. The length of the railway will be about 15 miles.

DENVER, COLO.—The Denver, Colorado Springs & Pueblo Interurban Elec. Ry. Co. has been incorporated in Colorado, with $4,500,000 capital and office at Denver. Surveys are being made for a line from Denver south via Colorado Springs to Pueblo, 119 miles. The section from Denver south to Colorado Springs, 74 miles, is to be built first. L. M. Pfeiffer and A. E. Van Deusen, of Denver; W. T. Brinford, Salt Lake City; C. Ledener and F. C. Lewis, of Chicago, are interested.

PALESTINE, TEX.—Contracts are to be let in May for building the line of the Palestine & Dallas Interurban R. R. Co., projected from Palestine, Tex., northwest via Corsicana, Waxahachie to Dallas, 110 miles, with a branch from Waxahachie east to Ennis, ten miles. There will be one small bridge over the Trinity River. J. V. Watkins, Pres., and G. A. Duren, Ch. Engr., Corsicana.

SNOHOMISH, WASH.—The Everett & Tacoma Ry. Co. has been incorporated to build an electric railway between Everett and Tacoma. The surveys for the route which have already been made. Capital stock, $2,500,000. G. M. Cochran, E. Colburn, E. L. Colburn, Edgar Wright and O. E. Crossman, all of Snohomish, are incorporators.

MONTREAL, QUE.—The Montreal Street Ry. Co. is applying to Parliament under the name of the Montreal Terminal Co. for permission to build and operate an electric elevated railway in this city. D. McDonald, Montreal, is Mgr. of the Montreal St. Ry. Co.

MORRISBURG, ONT.—Plans are under consideration by the Morrisburg Electric Ry. Co. for beginning construction on its projected line this spring. The greater part of the right-of-way has been secured. The road will be standard gage, 70 miles in length and will extend from Morrisburg to Ottawa, through the following cities: Williamsburg, Winchester, Chesterville, Morewood, Orwan, Kenmore and Metcalf. The overhead trolley system will be installed on the line. The power plant and repair shops will be erected in Morrisburg. Headquarters will be at Morewood. Capital stock, authorized, $1,000,000; issued, $200,000. Bonds, authorized, $800,000. C. M. Willard is Pres. and Gen. Mgr.; W. M. Louchridge, Vice-Pres.; Bradford Louchridge, Secy.; J. H. Louchridge, Treas., all of Morewood; Robert Merkley, Williamsburg, Plant Supt.; G. Brown, Morrisburg, Ch. Engr.

LIGHT AND POWER PLANTS.

(* *denotes that this work is advertised in Engineering News.*)

NEW BRITAIN, CONN.—See item under Bridges.

GLENS FALLS, N. Y.—Plans are being considered by the Glens Falls Gas & Electric Co. for improvements to its plant, which will include the installation of a new switchboard in the local station and the erection of a duplicate high-tension transmission line from the power-house at Bakers Falls to the station in Glens Falls. The cost of the work is estimated at $20,000. C. E. Wakeman, Glens Falls, is Gen. Mgr.

BERGEN, N. Y.—The Council has awarded the contract for furnishing the engine, generator and two boilers, each of 70 HP., to the RIDGEWAY DYNAMO & ENGINE CO., Ridgeway, Pa., for the lump sum of $4,200. The contract for the line supplies has been awarded to the ROCHESTER ELECTRIC MOTOR CO., of Rochester, N. Y., for $1,021. The equipment will be used in the new electric light plant that will be built here by the city.

WEST POINT, N. Y.—Bids are asked until noon, March 19, by the Quartermaster, West Point, for furnishing and installing an electrical distributing and street lighting system for the cadet camp.

JAMESTOWN, N. Y.—According to the Dunkirk (N. Y.) "Evening Observer," a statement has been made by Conrad Thurston, that plans and surveys have been completed with a view to diverting the water from Chautauqua Lake into Lake Erie, closing the natural outlet of the lake, which flows through this city into Conewango Creek and thence into the Allegheny, Ohio and Mississippi rivers. The object of these investigations is to produce waterfalls for one or two power plants to be located between Mayville and Westfield. Chautauqua Lake is 755 ft. higher than Lake Erie and seven miles separate the two bodies of water. It is stated in the reports made to Mr. Thurston by hydraulic engineers that a canal could be dug from the head of Chautaukqua Lake—for a distance of about five miles, where a water-fall of 360 ft. could be had. The natural flow of water from the lake, if diverted into this canal, would be sufficient, even in low stages, to produce 5,500 HP. in an electrical plant. From this fall the water would flow along Chautauqua Creek into Lake Erie and still farther down stream, a second fall of 200 ft. could be secured. According to the plans submitted, the canal could be dug and a complete electric plant equipped at a cost of $327,000. The proposed change does not contemplate lowering the lake in any degree, but to utilize the natural flow of water from this higher body into the lower one.

JOHNSTOWN, PA.—We are officially advised that the Johnstown & Gallitzen Ry. Co., of Johnstown, Pa., is ready to receive bids for steam power plant equipment. It will generate current at about 13,000 volts with two units of 750 KW. each. One substation will be located at the main power station, which is approximately the center of distribution system near South Fork, Pa. and an additional sub-station will be built at each end of the line. Current will be transformed and stepped down at the substations to 600 volts, direct connected, as the company proposes to operate cars for a distance of 2¼ miles over the Johnstown Passenger Ry. George Holman, Suppes Bldg., Johnstown, Pa., is Engr. and Gen. Mgr. Estimated cost, $97,500. Noted on Feb. 18.

The Dale Light, Heat & Power Co., of this city, has awarded the contract for furnishing a generator for the power-house here to the NORTHERN ELECTRIC CO., of Madison, Wis., at $4,100. The contract for the remainder of the equipment for this plant was placed some time ago. The plant will be completed early next fall.

*PORTSMOUTH, VA.—Bids are asked by the city until 8 p. m., April 13, for purchase of franchise and contract to light its streets, public buildings, residences, business houses, etc., and for furnishing electric power where required. L. P. Slater is City Clk.

FREDERICKSBURG, VA.—We are officially advised that the Electric Generating Co., of Fredericksburg, Va., will build a plant to be equipped with a horizontal turbine water wheel, two 38-KW. direct current exciters, 25-ton, 3-motor traveling crane, etc. The building will be 42 x 60 ft. and, with the equipment, will cost about $150,000. Bids will be received for pole and line equipment at once. R. M. Van Dorn, Exchange Hotel, Fredericksburg, is Engr.-in-Charge of the work.

AUGUSTA, GA.—The Georgia-Carolina Power Co. chartered with capital stock of $500,000 and privilege of increasing to $2,000,000 by N. B. Dial, of Laurens, S. C., J. L. Hankinson and W. G. Lancaster. The company will construct a dam 25 ft. high to develop 800 HP. for transmission by electricity to Augusta and South Carolina cities. The plant will be located at the mouth of Stevens' Creek, two miles above Augusta Locks.

FORT McPHERSON, GA.—Bids are asked until 11 a. m., March 30, by Lieut. F. J. Ostremann, Constr. Q. M., for installing eight steam heating plants in officers' quarters at this post, and for the necessary changes in the construction of the buildings.

BUCYRUS, OHIO.—The contract for lighting this city with electricity has been awarded to F. C. KINGSBURY, of Columbus, Ohio, a representative of the Westinghouse Electric & Mfg. Co. His bid for arc lamps was $74.50 per year on an all-night schedule and $69 per year per lamp on a moonlight schedule. He is to build the plant at once and have it in operation within eight months.

CLEVELAND, OHIO.—The Bangor Building Co. contemplates the erection of a power and lighting plant to be located in the rear of the Bangor Building, on Prospect Ave. Sketches for the project are being prepared.

The Electric Welding Products Co. has had plans prepared and has taken out a permit for a $10,000 brick addition to its plant at 2216 Clarkwood Road.

F. C. Kingsbury, of Columbus, Ohio, has been given a franchise to construct and operate an electric light and power plant in this city and also a contract for the street lighting. Under the terms of the contract Mr. Kingsbury is to furnish arc lamps at $74.50 per lamp on an all-night schedule and $69 on a moonlight schedule. The plant is to be in operation within eight months.

MONTICELLO, IND.—William Thorn and others have formed a company to construct a dam on the Tippecanoe River and a hydraulic plant to generate electricity for lighting and power purposes.

INDIANAPOLIS, IND.—Plans are being made upon which bids will be asked for the construction of a power plant at the Reform School for Girls. Estimated cost, $16,000. Mrs. Emma L. Elam is Chn. Bd. of Trustees.

STURGIS, MICH.—We are officially advised that a resolution has been adopted by the Council that application be made to the Board of Supervisors of St. Joseph County that permission be granted to the city of Sturgis to construct a dam across the St. Joseph River for the purpose of developing 2,000 HP. for light, heat and power uses, and directing the Mayor and Clerk to take the required legal steps on behalf of the city in presenting the application.

NORTH CHICAGO, ILL.—Bids are asked until noon, March 24, by J. E. Pillsbury, Ch. of Bureau of Navigation, Navy Dept., Washington, D. C., for outside lighting at the naval training station, Great Lakes, North Chicago, Ill. Specifications are on file at the office of Engineering News, New York.

VIRGINIA, MINN.—The Virginia Light & Water Co. contemplates making improvements to its system during the coming year, which will involve an expenditure of about $75,000. O. H. Griggs, Virginia, is Mgr.

OZARK, MO.—The Water Power Light Co. contemplates increasing the output of its plant at a cost of about $5,000. The equipment will include 50-KW. alternating-current generator, water turbine and possibly a 100-HP. automatic engine. When the above improvements are completed the company may add a storage battery of about 30-KW. capacity to its uptown [illegible]. The company next season [illegible] stall an ice and cold stora[illegible] Bronson is Secy. and Mgr.

*PRAGUE, OKLA.—Bids [illegible] p. m., March 23, by F. M. [illegible] Clerk, for furnishing item[illegible] the construction of a syste[illegible] and electric lighting plant [illegible] and tank, pressure pumps [illegible] motor driven deep well pum[illegible] tors; boilers, steel stack, fe[illegible] and piping, automatic stea[illegible] nator, switchboard, arc ligh[illegible] galvanized pipe, c.-i. pipe, [illegible] and boxes, transmission lin[illegible] Michel Cooke Eng. & Constr. [illegible] Engr., Joplin, Mo.

WALLA WALLA, WAS[illegible] Walla Valley Traction Co. [illegible] 1,000-HP. water wheels, two [illegible] either steam or gas., for a [illegible] and one 500-KW. unit for a [illegible] plant. F. S. Drake is Mgr.

TACOMA, WASH.—At a [illegible] the city of Tacoma authoriz[illegible] to construct a 20,000-HP. [illegible] power plant on the upper N[illegible] 30 miles south of Tacoma, at [illegible] exceed $2,000,000. F. L. Davi[illegible] informs us that surveys ha[illegible] menced and condemnation of [illegible] commenced as soon as survey [illegible] land is needed. Contract wi[illegible] in about eight months.

SEATTLE, WASH.—The fo[illegible] tracts were let on March 2 by [illegible] Public Works for constructing a [illegible] system at Second Ave., etc.: [illegible] No. 1, conduits, etc., CHARLES [illegible] ALD, $20,096; Sub-division No. [illegible] generators, MEACHAM & BABCOCK, [illegible]; Sub-division No. 3, iron poles, OLYM[illegible] DRY CO., Eighth South and P[illegible] $3,955.

OAKLAND, CAL.—Contracts [illegible] awarded by the Great Western [illegible] Crocker Bldg., San Francisco, a[illegible] St., New York, N. Y., to the GLOBE CONSTRUCTION CO., Chronicle Bldg., San Francisco, for the erection of a power-house on East Oakland Heights and a sub-station near Sessions Basin on the estuary. The power-house is to be completed by July, and the sub-station within six months from date. Both buildings are to be of reinforced concrete and total an expenditure of approximately $100,000.

AGNEW, CAL.—Bids are asked by the Board of Managers of Agnew State Hospital, at 7 West Santa Clara St., San Jose, until 7 p. m., April 7, for furnishing, plumbing and installing a concrete conduit, steam, gas and water piping, and electric wiring, at Agnew State Hospital, Agnew.

SALT LAKE CITY, UTAH.—See item under Water Supply—Irrigation.

OTTAWA, ONT.—Cecil B. Smith, C. E., Confederation Life Bldg., Toronto, Ont., is interested in a project, which will cost $1,000,000, for developing power for mining properties in the Cobalt District.

CORNWALL, ONT.—The Long Saulte Development Co., has applied to the Dominion Government again for permission to develop power on the St. Lawrence River at this city by the construction of a dam.

WINNIPEG, MAN.—Bids are asked by Magnus Peterson, Secy. of the Civic Bd. of Control, until 11 a. m., April 15, for the supply of two testing transformers, one 300-KW. at 80,000 volts and one 200-KW. at 200,000 volts and control equipment therefor. F. E. Cambridge is City Electrician; Smith, Kerry & Chace are Consult. Engrs., Confederation Life Bldg., Toronto, Ont.

CALGARY, ALTA.—The following contracts have been awarded by the city in connection with the municipal electric railway to be built this year: motor generator and switchboard, ALLIS-CHALMERS-BULLOCK CO., Toronto; 750-HP. engine, ROBB ENGINEERING CO., Amherst, N. S., $14,300; 1,100 tons of steel rails, GORMAN, CLANCEY & GRINDLEY, Agent, Calgary, Alta. The EAST KOOTENAY LUMBER CO. will supply the ties at 56 cts. each.

BRIDGES.

(* *denotes that this work is advertised in Engineering News.*)

NEW BRITAIN, CONN.—The Board of Public Works has asked for an appropriation of $153,887 for the needs of the department for next year. Included in this sum is $5,675 for bridges, $95,000 for streets, $5,000 for state highway work, catch basins, $2,000 new road roller, $3,500, and street lighting, $23,480.

READING, PA.—Bids will be received by A. L. Rhoads, County Controller, until 10 a. m., March 11, for erecting a hanging roof under the Penn St. bridge over the crossing at Penn and Front Sts. The roof is to be 46 ft. long and 14 ft. wide, and must be supported with 24 iron hangers ¾-in. in diameter, with ½-in. by 2½-in. washers, the carriers must be 3 x 4 yellow pine, the sheeting to be ⅞ white pine D. B. boards, covered with 2-ply rubberoid.

POTTSVILLE, PA.—Bids will be received by the Controller of Schuylkill County, Pottsville, Pa., until 10 a. m., March 22, for the erection of a steel bridge crossing the Schuylkill River at Palo Alto, East Side. Plans and specifications can be seen at the office of the County Commissioners.

BUTLER, PA.—The County Commissioners of Butler County have decided to erect a new steel bridge across the Connoquenessing River in the north end of this place, and will ask for bids as soon as the plans are prepared. No Engineer has been selected as yet.

*BEAUFORT, N. C.—We are officially advised that the G. & W. MFG. Co., 26 Cortlandt St., New York., has been awarded the contract for constructing a through-truss-wing steel bridge over Core Creek near Beaufort by the U. S. Engineer's Office, Wil-

mington, N. C., at $16,347. This bridge spans the creek which is now being dredged for the inlet waterway from Pamlico Sound to Beaufort. The contract includes steel work, concrete abutments, pile driving and excavating. Time of completion of the contract is seven months. List of bidders noted on Feb. 11.

WASHINGTON, D. C.—The United States Senate and House of Representatives have passed the District Appropriation Bill, which includes $30,000 for widening the bridge over Piney Branch on the line of 16th St., and $10,000 for the removal of the substructure and superstructure of the old Anacostia bridge.

ELIZABETH CITY, N. C.—The Camden Ferry Co., H. T. Greenleaf, Sr., Secy.-Treas., has decided to construct an iron bridge across the Pasquotank River to supplant present ferry system. The company will apply to the War Department for a permit. Estimated cost, $10,000.

TROTWOOD, OHIO.—Bids will be received by T. J. Kauffman, County Audr., Dayton, until 11 a. m., March 25, for all the labor and material necessary to build, construct and complete the substructure and superstructure of a bridge over Wolf Creek at Union Road in Madison Township, one-quarter mile north of Trotwood.

CLEVELAND, OHIO.—Bids will be received by the Board of County Commissioners of Cuyahoga County, Cleveland, until 11 a. m., April 3, for the labor and furnishing the materials for the substructure and paving, estimated cost $210,477, and the structural steel work, estimated cost, $456,750, necessary for the construction of a county bridge extending from Denison Ave. to Harvard Ave., and known as the Denison-Harvard bridge. Plans, descriptions, drawings, bills of material, specifications of work, and estimates on file in the office of the County Engineer at the New Court House, West Third St., and at the office of the County Auditor in the Old Court House, Cleveland.

PORT CLINTON, OHIO.—We are officially advised that the HOME ENGINEERING & CONSTRUCTING CO., Canton, Ohio, has been awarded contract by the county for constructing the superstructure of a bridge over the Portage River on Monroe St., at about $3,102. Henry Pafenbach is County Audr.

STRATFORD, OHIO.—Bids will be received by A. S. Conklin, County Audr., Delaware, Ohio, until noon, March 15, for all the labor and materials necessary to build and erect a 3-span through-riveted truss steel bridge over the Olentangy River at Stratford. Bids will be received separately on substructure and superstructure. The substructure will consist of about 375 perch sandstone masonry; the superstructure will consist of three spans of 70 ft. each; roadway 16 ft. in clear.

TOLEDO, OHIO.—Bids will be received by the Board of County Commissioners of Lucas County until 10 a. m., March 29 for all labor and the furnishing of all materials, tools, machinery and appliances required for the construction of approaches to bridge over Ten-Mile Creek at Stickney Ave. D. T. Davis, Jr., is County Audr.

TOLEDO, OHIO.—The County Commissions on March 3 awarded contract to the CAPITAL CONSTRUCTION CO., Columbus, Ohio, for the construction of the new bridge over Ten-Mile Creek at Central Ave., at $17,600. The bridge will be of concrete arch construction.

WASHINGTON C. H., OHIO.—Bids are asked by H. D. Chaffin, County Audr., until 2 p. m., April 6, for constructing bridges in various parts of the county.

DAYTON, OHIO.—The controversy over the Needmore road bridge project was settled by the County Commissioners on Feb. 25, when the contract for the structure was signed. The bridge was recently awarded to the BROOKVILLE BRIDGE CO., at $16,300. The award was at first questioned on technical grounds, but was subsequently found valid.

ELKHART, IND.—The Elkhart County Commissioners have ordered plans for the construction of a new bridge over Elkhart River at Jackson St. Estimated cost, $20,000.

BEDFORD, IND.—The Commissioners of Lawrence County have let contracts for the construction of four new bridges, as follows: One each to the VINCENNES BRIDGE CO., and the CENTRAL STATES BRIDGE CO., and two to the ELKHART BRIDGE CO.

LANSING, MICH.—We are officially advised that the Committee on Bridges of the Third Ward Aldermen will soon award contract for the construction of a 150-ft. bridge. A. D. Wilkins, 804 Hillsdale St. West, Lansing, is interested.

GENEVA, ILL.—Bids will be received until 7.30 p. m., March 15, by Oscar Nelson, City Clk., for constructing a reinforced concrete highway bridge across the Fox River at State St.

WESTMORELAND, KAN.—Bids are asked until April 1, by H. G. Huckstadt, County Clk., for constructing a 300-ft. steel approach to the Stockdale bridge over the Blue River. Bids were asked until Feb. 25.

MADISON, NEB.—Bids will be received by the Board of County Commissioners until noon, March 19, for constructing a 70-ft. span steel bridge with tubular piers and 16-ft. roadway across Battle Creek, near John Brauner's farm, in Schoolcraft Precinct; also all such other bridges of like class as above ranging in spans from 50 to 80 ft., as may be ordered by the Board of County Commissioners during the year beginning March 30, 1909, and ending March 29, 1910. George E. Richardson is County Clk.

AVILLA, MO.—William Kohlman, Consult. Engr., Carthage, Mo., is preparing plans for a reinforced concrete bridge, with 76-ft. span and 16-ft. roadway, 108 ft. over all, for Jasper County, at Avilla. L. L. Ashcroft is County Clk., Carthage.

SPRINGFIELD, MO.—Fred J. Marshall, Consult. Engr., Springfield, is preparing plans for two steel bridges for Greene County. W. B. Cloud is County Clk.

KANSAS CITY, MO.—The Metropolitan St. Ry. Co., W. W. Wheatley, Gen. Mgr., the Chicago & Alton Ry. Co. and the Missouri Pacific Ry. Co., have decided to construct a viaduct over the railroad tracks at Second St. The plans provide for a steel and concrete structure 960 ft. long with a concrete roadway 36 ft. wide and side paths 7 ft. wide.

EL PASO, TEX.—Bids for the construction of the bridge from Fabens to the "Island," which was petitioned for by the residents and property owners of the latter place, were opened on March 1 by the County Commissioners. Three bids were received as follows: The Darbyshire-Harvie Iron & Machine Co., $3,950; EL PASO BRIDGE & IRON CO., $3,795 (awarded contract); C. G. Sheeley, Denver, Colo., $3,975.

TULSA, OKLA.—The County Commissioners on Feb. 25 opened bids on the construction work for 13 new bridges in the county and let the contract to the lowest bidder, the CENTRAL STATES BRIDGE CO., of Indianapolis, Ind., at $13,256.

VINELAND, COLO.—The County Commissioners on Feb. 24 awarded the contract for the construction of a bridge across the Grand River at Vineland to the M. J. PATTERSON CONTRACTING CO., Denver, Colo. Cost, about $30,000.

DENVER, COLO.—The east end of the 23rd St. viaduct is to be reconstructed with steel at the cost of $150,000. That part of the structure is not heavy enough to stand the weight of the heavy interurban cars that now run over it and the Tramway company will go to the expense named in making it safe. The Board of Public Works approved plans on Feb. 16 for the improvement.

FREDERICTON, N. B.—The Provincial Works Department is preparing plans for steel bridges at Chipman, Fredericton Junction and Buctouche. Bids for construction will be asked soon.

MATAMORAS, MEX.—According to the "Boston Transcript" the contract between the National Railways of Mexico, the Mexican Government and the St. Louis, Brownsville & Mexico R. R. for the building of an international bridge across the Rio Grande River to connect the two systems of railway has been formally signed. The plans for the proposed bridge were approved some time ago by all the interests concerned, and it is reported that the material for it has been ordered. The long delay in beginning work on this bridge was due to differences that arose as to what point on the Rio Grande River the bridge should be located. President Diaz insisted that the bridge should be built to connect Brownsville and Matamoras, or not at all, and this was finally agreed to by all the other parties interested. The present Matamoros terminus of the National Railways of Mexico is situated about five miles from the proposed bridge crossing. It is estimated that the bridge will cost more than $500,000. The connecting of the two railroad systems will mean the opening of a new gateway of travel and traffic between Mexico and the United States. E. C. Burgess is Resident Engr., St. Louis, Brownsville & Mexico R. R. Co., Corpus Christi, Tex.

BUILDINGS.

(denotes that this work is advertised in Engineering News.)*

AUGUSTA, ME.—Bids were received as follows on March 3, at the office of James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of an extension to the post-office at Augusta, Me.: Otto Nelson, Bangor, Me., $128,000; Haroce Purinton Co., Waterville, Me., $129,438; William H. Fissell & Co., 1133 Broadway, New York $116,323; Charles B. Maguire, Providence, R. I., $132,057; Darling & Slade, Fall River, Mass., $124,379; F. W. Cunningham & Sons, Portland, Me., $131,500; Horton & Hemingway, Boston, Mass., $126,021; Smith & Rumery, Portland, Me., $124,629.

HARTFORD, CONN.—The Technical High School Committee, Archibald A. Welch, Chn., has submitted its report to the Common Council, showing that a building erected after plans of Davis & Brooks, Archs., of this city, will cost approximately $600,000, and the land necessary $150,000 to $175,000. The committee recommends that the work be started Sept. 1, 1909, and that the plans of Davis & Brooks be accepted. The report has been referred to the Finance Committee.

The special committee appointed to investigate the question of a new municipal building has submitted its report to the Common Council. Several sites are named. The estimate placed on the probable cost of the building is $250,000, said building to be fireproof of sufficient capacity to provide for the city's needs. The report has been referred to the Finance Committee.

MIDDLETOWN, N. Y.—Bids were received by the State Commission in Lunacy on March 3 for work at the Middletown State Hospital, including the construction of (1) an hospital for acute insane, (2) heating, (3) and plumbing, (4) for conduits for Nurses' Home and Farmer's House, including steam piping and electric cables, (5) construction of day room annexes, including heating and electric work, and (6) for construction of pavilion for contagious diseases, as follows: Watertown Construction Co., (1) $122,611, (2) $5,800, (3) $5,250; John Dyer, Jr., Albany County Bank Bldg., Albany, N. Y., (1) $119,500, (2) $10,500, (3) $8,500, (4) $17,747(5) $16,725, (6) $3,250; F. T. Nesbit & Co., 116 Nassau St., New York, (1) $129,950, (2) $7,300, (3) $4,600; George Sykes, 1123 Broadway, New York, (1) $115,970, (2) $7,800, (3) $6,200; John H. Parker & Co., 42 East 23d St., New York, (1) $129,875, (2) $8,500, (3) $6,741, (4) $19,750, (5) $19,975, (6) $4,989; Kelly & Kelley, 45 East 42d St., New York, (1) $143,614, (2) $10,000, (3) $6,000, (4) $21,128, (5) $22,166; Buffalo General Building Co., (1) $94,000 (no bids for heating and plumbing), (5) $14,000 (does not include heating and plumbing); The R. T. Ford Co., Rochester, N. Y., (1) $104,500, (2) $7,050, (3) $8,000, (4) $15,000, (5) $15,000, (6) $3,050; R. Richards Sons Co., Utica, N. Y., (1) $110,500, (2) $8,274, (3) $7,396, (4) $17,727, (5) $14,053, (6) $2,500; Mosier & Summers, 1296 Seneca St., Buffalo, N. Y., (1) $107,247, (2) $7,719, (3) $7,380, (4) $16,365, (5) $14,995, (6) $2,435; North-Eastern Construction Co., 225 Fifth Ave., New York, (1) $113,885, (2) $6,947, (3) $5,602; A. E. Stephens & Co., Western Ave., Albany, N. Y., (1) $115,498, (2) $7,500, (3) $4,900, (4) $14,220, (5) $8,988; Peter Keeler Building Co., 468 Orange St., Albany, N. Y., (1) $104,800, (2) $9,200, (3) $484, (4) $17,550, (5) $12,980, (6) $3,190; Morris Kantrowitz, 20½ Plain St., Albany, N. Y., (1) $112,500, (2) $7,900, (3) $9,900, (4) $16,800, (5) $16,300, (6) $2,200; Charles H. Peckworth, 415 Hudson St., New York, (1) $121,905, (2) $8,480, (3) $5,564; Ross-Busch Co., New York, (4) $15,889, (5) $13,846, (6) $2,700. T. E. McGarr is Secy.; F. B. Ware, State Archt., Capitol, Albany.

NEW YORK, N. Y.—Bids are asked by James Knox Taylor, Superv. Arch., until 3 p. m., April 12, for the construction (including plumbing, water supply system, etc.) of the superstructure to the extension, remodeling, etc., of the U. S. Assay Office Building, New York. The bids for constructing the foundation of this extension, etc., will be received on April 4, as advertised in Engineering News last week.

The large vacant plot adjoining Wallabout Market, on Fleetman St., and extending from Flatbush Ave. to the East River, Brooklyn, will be improved, according to the Brooklyn "Eagle." Applications for the erection of 61 buildings have been made to the Superintendent of Markets, and in less than a year the tract, fronting 381 ft. on Lemon St. and 396 ft. on the river, will be used. Operations on eight buildings will begin this month, and the remainder will be erected as soon as the ground is graded and remeasured. Floats will take meat to the doors of the new buildings on the water front. Exposure to the air and dust will be avoided. George Dressler is Pres. of the Wallabout Market Merchants' Association. Noted on Jan. 28.

NEW YORK, N. Y.—Plans for the proposed building for Hollander & Co. at 550 and 552 Fifth Ave. have been perfected. It will be an 8-story, fireproof structure. The first floors will be occupied by the owners. The buildings on the site will be torn down on May 1 and the new building completed on Dec. 1. The building will cost about $200,000. Buchman & Fox are Archs., 9 East 59th St.

Plans have been filed for a 10-story warehouse to be built from designs by Maynicke & Franke, Archs., 298 Fifth Ave., for the Strohmeyer & Arpe Co., 64 Pearl St., on an irregular plot of 52.8 ft. and a depth of 101.5 ft. at 139 and 141 Franklin St., to cost $125,000, and for a 5-story flathouse, with accommodations for 25 families, to be built for Donald Robertson from designs by Moore & Landsiedel, Archs., 148th St. and Third Ave., at the corner of Audubon Ave. and 172d St., at a cost of $60,000.

George F. Pelham, Arch., 503 Fifth Ave., has filed plans for a 6-story apartment house, containing 47 suites, to be built at a cost of $300,000 for the Fleischmann Bros. Co., 507 Fifth Ave., at the corner of Broadway and 156th St.; a 6-story apartment house, with 37 suites, at the corner of Fort Washington Ave. and 179th St., for the Fort Washington Syndicate, 165 Broadway, Henry Morgenthau, Pres., to cost $125,000, and a 6-story apartment house, with 48 suites, for the Miami Realty Co., to cost $100,000.

Plans have been filed for two 6-story apartment houses, each containing 36 suites of apartments, to be built on the block on the west side of Broadway, from 171st to 172d St., for George J. Johnson & Sons, 830 Westchester, Ave., owners, at a cost of $125,000 each. George & Edward Blum, Archs., 507 Fifth Ave.

A 12-story commercial building is to be erected for Henry Corn, 341 Fifth Ave., as owner, at 54 to 62 West 21st St., from designs by Maynicke & Franke, Archs., 298 Fifth Ave. It is to be of brick, finished with limestone and granite trimmings. It will have a frontage of 112 ft. and a depth of 92 ft. It is to cost $300,000.

NEW YORK, N. Y.—Plans have been filed for an 8-story loft building, with ground floor stores, to be erected for B. F. Golden, at 217 and 219 Center St. It is to cost $125,000, according to the estimate of Bernstein & Bernstein, Archs., 24 East 23d St.

The Order of Free and Accepted Masons, owner of the Masonic Temple property at the corner of Sixth Ave. and 23d St., at a meeting of the Trustees of the order, has decided to erect an 18-story steel-frame office structure, covering the entire corner. The façade will be ornamental, with basement and sub-basement, of fireproof construction, involving about 3,500 tons of steel. The materials will be of either granite or limestone in the lower stories, with brick and terra-cotta above.

BUFFALO, N. Y.—A 3-story and basement club house, 60 x 100 ft. of brick with stone trimmings, is to be erected by the Catholic Young Men's Club of St. Mary's Church at the corner of Broadway and Pine St., on property adjoining the church. The building will contain reading rooms, library, game rooms, gymnasium and baths. Cost, $50,000. Schmill & Gould, 1338 Prudential Bldg., are Archs. Rev. Francis Parr is Pastor.

Howard Beck, City Arch., Erie County Bank Bldg., is preparing plans for a 16-room addition to School No. 1, on Seventh St., to have three stories and basement, brick and steel construction, metal ceilings, steam heat, etc. Cost, $80,000. He is preparing plans also for a 10-room addition to School No. 59, on East Glenwood Ave., with three stories and basement, brick and steel construction, metal ceilings, steam heat, etc. Cost, $65,000. Francis G. Ward, Comr. of Public Works, City and County Hall, will ask for bids for both buildings as soon as specifications are ready.

BUFFALO, N. Y.—The Delaware, Lackawanna & Western R. R. Co. is preparing plans for a terminal passenger station to be built at the foot of Main St., Buffalo, and to cost about $500,000, the erection of the station on the contemplated site being contingent upon the granting of authority by the city for new street approaches and the approval of the Public Service Commission. G. J. Ray is Ch. Engr. D., L. & W. R. R. Co., Hoboken, N. J. Charles J. Phillips is Div. Supt., 44 Main St., Buffalo.

CENTRAL ISLIP, N. Y.—Bids are asked by the State Commission in Lunacy until 3 p. m., March 24, for construction of Nurses' (Attendants') Home, including heating, plumbing and electric work for two horizontal tubular boilers; for engine, generator and switchboard, and for glass enclosures for verandahs, at the Central Islip State Hospital, Central Islip, N. Y. T. E. McGarr is Secy.; F B Ware, State Arch, the Capitol, Albany

JOHNSTOWN, N Y.—Bids are asked by Henry Veghte, Chn. of the School Bd. of Johnstown, N. Y., until 2 p. m., of April 6, for furnishing the necessary labor and materials required for the construction and completion of a High School building. The work will be divided as follows: Mason, structural iron, ornamental iron, carpenter, painting and glazing, roofing, electric, plumbing and heating work. Bids will be received separately for each of above branches, or one bid for entire work may be submitted. Fuller & Pitcher, 95 State St., Albany, N. Y., are Archs.

SPRING LAKE BEACH, N. J.—Henry Welsh Rogers, of Rogers, Holloway & Co., 1 Broadway, New York, is about to erect a $65,000 summer residence in Spring Lake. The building will occupy the center of a block of 14 lots and will face on Ocean Ave

ELIZABETH, N. J.—Bids were received as follows on March 9 at the office of James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of a post-office building at Elizabeth, N. J.: Charles H. Peckworth, 415 Hudson St., New York, $144,744; W. J. Moran, Inc., Brooklyn, $173,997; George Hildebrand, New York, $172,500; A. E. Stephens Co., Binghamton, N. Y., $168,131; M. Byrnes Bldg. Co., Elizabeth, N. J., $203,900; King Lumber Co., Charlottesville, Va., $183,700; Richard E. Henningham, New York, $156,876; Calumet Construction Co., New York, $154,619; P. J. Carlin Construction Co., New York, $158,695; Herman Probst, New York, $159,900; Bliss & Griffiths, New York, $145,000; John Pierce Co., New York, $154,900; Durolithic Co., Buffalo, New York, $159,000; Ambrose B. Stannard, New York, $153,638; John G. Unkefer & Co., Minerva, Ohio, $153,900; Laurence J. Rice, New York, $158,789; Cramp & Co., Philadelphia, $153,729; George A. Fuller Co., Washington, $165,000; F. T. Nesbit & Co., Inc., 116 Nassau St., New York, $157,900; John H. Parker Co., New York, $159,987; M. P. Wells, Philadelphia, $158,136; J. F. Walsh Co., New York, $173,000; Walter Titus, Philadelphia, $166,735; William H. Fissell & Co., New York, $149,900; J. E. & A. L. Pennock, Philadelphia, $154,378; Charles McCaul Co., Philadelphia, $151,686; Conners Bros. Co., Lowell, Mass., $152,800; Northeastern Construction Co., New York, $156,800. Time, June 1, 1910.

PHILADELPHIA, PA.—It is stated that John Stafford, 1112 Chestnut St., will begin work immediately on an operation of 100 7, 8 and 9-room houses on the block between 28th and 29th Sts., Montgomery and Glenwood Aves., which recently was purchased by Mr. Stafford from Elizabeth Reakirt, the Ridgeway Estate and Louis McGrath. The houses will be provided with all modern conveniences. The cost of the operation will be about $275,000. In connection with this operation Mr. Stafford is building five flat houses at 33d St. and Columbia Ave.

POTTSVILLE, PA.—L. H. FOCHT & SON, of Reading, Pa., have been awarded the contract to erect a 6-story store and office building at the corner of Center and Market Sts., this summer for the Thompson Estate. The tenants of the building will vacate by April 1, when the work of tearing down the present structure will commence

BALTIMORE, MD.—The Theatorium Co. has been organized under the laws of Delaware and capitalized at $100,000. Samuel M. Buckman is Pres.; Henry E. Smith, Secy.; Harry E. Jackin, Mgr., and H. Hechheimer, Counsel. Otto G. Simonson, American Bldg., is Arch. The company is formed for amusement purposes and will begin at once the erection of a theatorium on the lot purchased for the purpose on North Ave., east of Charles St. The building will cover the entire lot, having a frontage of 39 ft., with a depth of 175 ft. to Adams Alley. The design is of modern Gothic architecture and consists of one large arch entrance, banked on each side by smaller decorative openings, leading into a domed vestibule, having a depth of 35 ft. In this vestibule is the ticket office, and above is a shell for the musician's balcony. By means of double doors at each side of the vestibule, entrance is had to the auditorium, which will be about 90 ft. wide and 100 ft. long, having a seating capacity of about 500, with two aisles leading directly to two rear exits, one on each side of the stage. The stage will have the usual accessories, with fireproof curtain, dressing rooms, fly galleries, paint bridge, sliding skylights and hose standpipe system.

*ATLANTA, GA.—Bids are asked by James Knox Taylor, Superv. Arch, Washington D. C., until 3 p. m., March 26, for the installation of a vacuum-cleaning system for the U. S. post-office and court-house at Atlanta, Ga.

Bids were received as follows on March 8, at the office of James Knox Taylor, Superv. Arch. Treasury Dept., Washington, D. C.,

for the installation of a low-pressure heating system in the post-office building at Atlanta, Ga.: Farrell Heating & Plumbing Co., Atlanta, Ga., $46,450; York Engineering Co., York, Pa., $40,108; F. A. Clegg & Co., Louisville, Ky., $47,700; West End Heating & Engineering Co., Philadelphia, $48,664; Fitzpatrick & Hoeffner, Columbus, Ohio, $49,800; Anderson-Darragh Co., Pittsburg, $53,655; Frank Dobson Co., New York, $44,750; Hoben & Doyle, Philadelphia, $47,000; Charles McCaul Co., Tenth and Sansom Sts., Philadelphia, $37,700; General Fire Extinguishing Co., Providence, R. I., $47,647; Crook-Kries & Co. Baltimore, $52,450; Chafer Co., Cleveland, Ohio, $45,000; American Machine & Mfg. Co., Charlotte, N. C. $39,057; Hurley & Co, St. Paul, $46,350; G. A. Kees Domestic Engineering Co., St. Paul, $48,852; S. Faith & Co., Philadelphia, $49,997; Montgomery Heating & Ventilating Co., Montgomery, Ala., $49,620; Thompson-Starrett Co., New York, $40,000.

BIRMINGHAM, ALA.—We are officially advised that Miller & Martin, Archs., Title Guarantee Bldg., have prepared plans for a 2-story brick club building to be erected for the members of the Phoenix Club, to be erected at 20th St. and 15th Ave. Cost, about $40,000. B. F. Ezekiel is Secy. Bids will be received about March 15.

SHREVEPORT, LA.—The Building Committee of Centenary College, Shreveport, contemplates erecting an additional building at a cost of about $100,000. Rev. B. C. Carter, Shreveport, has charge of the preliminary plans.

LEESVILLE, LA.—A contract was awarded by the police jury of this parish to the H. B. HULL CONSTRUCTION CO., of Jackson, Miss., for the erection of a $57,000 court-house here.

SHREVEPORT, LA.—Bids for construction of a high school building to cost approximately $60,000 will be advertised for soon by the Parish School Board. Prof. C. E. Boyd, Shreveport, La., is interested.

TOLEDO, OHIO.—James Knox Taylor, Superv. Arch. Treasury Dept., Washington, D. C., has awarded contract for the construction of a post-office building at Toledo, Ohio, for $468,592 to CHARLES McCAUL CO., Tenth and Sansom Sts., Philadelphia, Pa. Time, Aug. 1, 1910.

CINCINNATI, OHIO.—Bids are asked until noon, April 6, by the Clerk of the Board of Education, for furnishing all materials and doing work necessary to complete the alterations and additions to the 27th District School Building, located on the west side of Winchell Ave., between Harrison Ave. and Bank St., Cincinnati. C. W. Handman is Business Mgr.

CLEVELAND, OHIO.—See item under Miscellaneous Contracts—Dock Repairs.

INDIANAPOLIS, IND.—Trustees Royal Order of Moose, Eugene Harris, Chn., will receive bids for erection of a club house as soon as plans are completed. The building wil be four stories high. There will be 50 sleeping rooms, a gymnasium, swimming pool, etc. S. G. Bartell, 705 Germania Ave., is Arch.

The Board of Public Works is preparing to let contracts for the construction of two fire engine houses and four sub-police stations. Aggregate cost will be about $70,000.

Plans are being prepared, upon which bids will be asked soon, for the construction of a tuberculosis hospital. Dr. Eugene Buehler is Secy. Bd.

MICHIGAN CITY, IND.—The Elks Lodge, No. 432, has been incorporated and has procured a site upon which to erect a lodge hall and business building. Bids will be asked for soon by the Trustees.

MOUNT VERNON, IND.—The Trustees of Posey Aerie, Fraternal Order of Eagles, will ask for bids soon for construction of a lodge hall building. George A. Weckesser, Chn.

BLOOMINGTON, IND.—The Trustees of the Holy Trinity Episcopal Church have ordered plans and will invite bids soon for erection of a new and modern church edifice. Estimated cost, $45,000.

CAYUGA, IND.—The Illinois and Indiana Holiness Association has bought a site near this city upon which to erect a college building to cost $100,000. Bids will be in order in the spring.

SEYMOUR, IND.—The city authorities will ask for bids soon for construction of a hospital, the gift of Mrs. Louis Schneck.

DETROIT, MICH.—The Independent Order of Foresters, W. H. Sparling, Secy., 69 Hazlewood Ave., has decided to erect a temple, at an estimated cost of $150,000.

CHICAGO, ILL.—The "Record-Herald" states that 50 flat buildings are to be put up near Garfield Park by S. D. Englebrecht. These buildings will have two stories and will occupy lots that are 24 x 51 ft. The total cost will be $250,000. Work on the buildings will begin in about two months.

Changes that will involve the expenditure of $50,000 are to be made in the mercantile building at the corner of Wabash Ave. and Van Buren Sts. The building, which is four stories, is to be devoted to studios, offices and stores. T. F. McDermott is the owner.

Sketches are being prepared by Holabird & Roche, Archs., Monadnock Bldg., for the 20-story building that is to be erected at the corner of LaSalle and Madison Sts.

NORTH CHICAGO, ILL.—Bids are asked until noon, April 26, by J. E. Pillsbury, Ch. of Bureau of Navigation, Navy Dept., Washington, D. C., for the construction of a Commandant's house and six houses for officers' quarters at the Naval Training Station, Great Lakes, North Chicago, Ill. The bids previously received for this work were rejected as exceeding the available appropriation.

CHICAGO, ILL.—The proposed McCormick building will occupy the ground at the corner of Michigan Ave. and Van Buren Sts., where the Victoria Hotel now stands. It will be ready for occupancy, it is expected, about April 1, 1910. GEORGE A. FULLER & CO., Marquette Bldg., Chicago, Ill., are the contractors. The building, which will be the property of R. Hall McCormick, was designed by Holabird & Roche, Archs., Monadnock Bldg.

MADISON, WIS.—The Board of Regents of the University of Wisconsin has decided to have plans drawn for a wing to the Engineering Building, it is stated.

*BURLINGTON, IOWA.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., March 30, for new toilet rooms, etc., at the U. S. post-office, Burlington.

HANNIBAL, MO.—John J. Cruikshank advises us that bids will be advertised for about April 15 for a fireproof city hall, to cost $75,000; equipment, $8,000.

ST. LOUIS, MO.—Plans and specifications for a clubhouse for the Tower Grove Turnverein Association have been prepared by William Lucas, Arch., 816 Olive St., The structure is to cost $200,000, will be five stories, of brick, and will have a frontage of 128 ft. on Grand Ave. and 103 on Juniata St. Construction will begin at once.

DENVER, COLO.—We are officially advised that Harry W. Humphreys, 1758 Stout St., propose to erect at 1534 to 1538 Wilton St., a 4-story reinforced-concrete office building, 50 x 125 ft. William E. Fisher & Bro., Railway Exchange Bldg., are Archs. The building proper will cost $75,000 and the equipment, including vault building, will cost $75,000 also. Bids will be received at once.

SEATTLE, WASH.—F. A. Sexton, Lumber Exchange, has prepared plans for a 7-story building, to be erected at First Ave. and King St., at an estimated cost of $70,000. John Mueller, of Georgetown, is owner.

PORTLAND, ORE.—Bids are asked at the office of the School Clerk, City Hall, until 5 p. m., March 17, for building additions to the following school buildings, viz.: The Albin Homestead School building, the Creston School building, the Irvington School building, the Ockley Greed School building, the Vernon School building; finishing two classrooms, etc., in the Peninsular School building and for building a new Williams Ave. School Building. T. J. Jones, 334 East Third St., is Arch.

TIBURON, CAL.—The following bids were received by the Chief of the Bureau of Equipment, Navy Dept., Washington, D. C., for the construction and erection of coal shed at the U. S. Naval Coal Depot at California City Point, Cal.: Hyde, Harjes & Co., 112 Market St., San Francisco, Cal., $447,000; Snare & Trieste, 143 Liberty St., New York, $255,000; Penn Bridge Co., Beaver Falls, Pa., $279,889, $280,049 and $282,563; San Francisco Bridge Co., Monadnock Bldg., San Francisco, Cal., $314,500; Pacific Construction Co., 16 California St., San Francisco, Cal., $310,490; alternate $308,500.

FERNDALE, CAL.—Bids are asked until noon, April 1, by the Board of Trustees of the Town of Ferndale for constructing a reinforced-concrete library building. G. W. Dungan is Clerk; Warren Skillings, 404 F St., Ferndale, is Arch.

SACRAMENTO, CAL.—Bids for the proposed city hall were received by the Board of Trustees on Feb. 15. Two bids were put in by each contractor—one for building the structure with pressed brick, terra cotta and granite and the second for a granite facing over the entire structure. The lowest bid for pressed brick, terra cotta and granite was that of the THOMPSON-STARRETT CO., Royal Insurance Bldg., San Francisco, and contract has been awarded to this firm at $173,000. A complete list of bids was given last week.

VISALIA, CAL.—Bids are asked by the City Council until 5 p. m., March 17, for a city hall and Fire Department building. Morve L. Weaver, Holt Block, is Arch.

MONTREAL, QUE.—Plans have been completed by the Canadian Pacific Ry. Co. for the extension of the Windsor St. station. The new buildings will cover the entire block of land bounded by Windsor, Osborne, Mountain and St. Antoine Sts., and will almost quadruple the office and track space at present in use. The total area of the terminal will be 400,000 ft. Eight additional tracks will run into the terminal. The head offices will be extended to St. Antoine St., with a total frontage of 275 ft. Work will commence in a few months. J. W. Leonard is Gen. Mgr., Montreal.

WESTMOUNT, QUE.—The congregation of the Church of St. Matthias has decided to accept plans prepared by Ross & McFarlane, 224 St. James St., Montreal, Que., for a church building, to cost $45,000. The dimensions of the new church will be 50 x 120 ft., and it will accommodate a congregation of 700 persons. It will be built of Indiana limestone. The site is at the corner of Churchill Ave. and Cote St. Antoine Road, below the site of the present church.

TORONTO, ONT.—The Board of Control has awarded the contract for the erection of the proposed Transportation Building at the Exhibition Grounds to FRANK ARMSTRONG, 296 Berkeley St., at $87,919, of which $2,460 is for maple flooring. The estimate of the architect, George W. Gouinlock, Temple Bldg., was $86,000. Eight bids were received. The building will be 337 ft. long and 153 ft. wide and will be constructed of red pressed brick and cut stone. It is to be completed, under the contract, by Aug. 21.

PRINCE ALBERT, SASK.—Bids are asked by J. McLeod until noon, March 20, for erection of a school house near this city.

WATER SUPPLY—IRRIGATION.

(denotes that this work is advertised in Engineering News.)*

NEW YORK, N. Y.—Bids are asked by the Board of Water Supply until 11 a. m., March 30, for Contract 25, for the construction of Croton and Chadeayne tunnels, Kitchawan and Millwood North cut-and-cover, and a portion of Croton cut-and-cover, in the Croton division of the Catskill aqueduct, in the towns of Yorktown and New Castle, Westchester County. The tunnels are on the hydraulic gradient and are 3,000 ft. and 700 ft. long, respectively, and 17 ft. high by 13½ ft. wide inside. The portions of cut-and-cover aqueduct are of plain concrete, 17 ft. high by 17½ ft. wide inside, and aggregate 13,200 lin. ft.

NEW YORK, N. Y.—We are officially advised that William E. Paine, 16 Beaver St., New York, and Benjamin B. Odell, Jr., of Newburgh, N. Y., have been appointed by the Supreme Court as receivers of the Thomas McNally Co., and have been directed by the court to complete the construction of the Catskill aqueduct from Hunters Brook, Westchester County to Foundry Brook, Putnam County. The receivers will undoubtedly sublet the contract in sections. The contract price with the Board of Water Supply is about $4,000,000. About one-tenth of the work under the contract has been completed.

*NEW YORK, N. Y.—Bids will be received by the Board of Water Supply, 299 Broadway, New York, until 11 a. m., April 6, for Contracts 17 and 18, for the construction of about 14,000 lin. ft. and about 15,600 lin. ft., respectively, of plain concrete conduit, known as cut-and-cover aqueduct, 17 ft. high by 17½ ft. wide inside. The work is located in the towns of Shawangunk, Ulster County, and Montgomery, Orange County, about eight miles northwest of Newburg, N. Y. Bids or proposals are invited for either or both contracts separately and for both contracts combined. Any bidder may make a bid for either contract, or for both contracts combined. A separate form of proposal will be furnished for the purpose of a combined bid.

NEW YORK, N. Y.—An extension of the high-pressure fire-fighting system has been planned by I. M. De Varona, Ch. Engr. Department of Water Supply, Gas and Electricity, for furnishing, delivering and laying water mains in Gleason, Grace, Green, Lyon, Parker, St. Peters and Tremont Aves., and in 172d, 173d and 174th Sts., the Bronx (east of the Bronx River): Joseph Burns, 147 East 125th St., $65,037; G. Galluchi, $70,986; James H. Rogers, $67,484; Louis D. Gregory, $66,688; Henry E. Fox, $71,364; Hanover Contracting Co., $75,886; Daly & McBean, $78,300; Wilton Contracting Co., $69,393; Joseph Molea, $68,972.

Also for furnishing, delivering and laying water mains in White Plains Rd., Boro. of the Bronx (east of the Bronx River): O'Leary & Flannigan, $71,009; Hanover Contracting Co., $88,994; Daly & McBean, $89,616; James M. Rogers, $74,737; Louis D. Gregory, $73,879; Joseph Burns, 147 East 125th St., $79,126; Henry E. Fox, $80,819; G. Galluchi, $81,242; Ainna & Lyons, $83,707; Wilton Construction Co., $79,066; Joseph Molea, $81,826.

TOWER MILLS (Riverhead post-office), L. I., N. Y.—We are officially advised that MURALT & CO., 114 Liberty St., New York, we are officially advised have been awarded the contract for remodeling and enlarging the water power plant on the Peconic River at this point. New turbine of the vertical shaft type will replace the old water wheels now in use and an additional unit of the same general design will be installed.

COHOES, N. Y.—The New York Assembly on March 1 passed the bill authorizing the issuing of bonds for the construction of a filtration plant by the city of Cohoes. The plant is to cost $25,000. M. D. Hanson is Mayor of Cohoes.

CROGHAN, N. Y.—S. S. Snell, C. E., has completed an estimate and survey for a water system for the village. Estimated cost, $50,000. The reservoir capacity will be 2,000,000 gallons and the fall will be 237 ft. The water will be taken from two springs having a natural flow of [illegible] gallons per min. These springs are located at the head of Pine Creek and flow [illegible] pure sand. They are located about [illegible] miles south of Croghan. The estimate [illegible] was made is for a complete water system [illegible] and 23 hydrants.

NIAGARA FALLS, N. Y.—The Board of Water Commissioners, [illegible] C. Douglas, Pres., has approved plans for the construction of a new water [illegible] and filtration plant. Estimated cost [illegible] $310,000 for the water-works, and $35[illegible] for the filtration plant.

*WEBSTER, N. Y.—The [illegible] Board on Feb. 27 awarded contracts [illegible] for the new water system here: [illegible] construction of piping and reservoir [illegible] S. HOOKWAY, Syracuse, N. Y., at $[illegible] for stand-pipe to CONNERY & CO., [illegible] North Ninth St., Philadelphia, at $1,97[illegible] contracts for pumps and motors were not [illegible]ded.

VINELAND, N. J.—The [illegible] Light, Heat & Power Co. [illegible] with a capital of $100,000 [illegible] water power of Maurice River [illegible] develop the motors are: E. C. Potter, [illegible] The promoters are: E. C. Potter, [illegible] W. Maloney, of Avondale, [illegible] F. Groff, Hydraulic Engr., of Lancaster, Pa.; C. W. Shoemaker, Bridgeton, and [illegible] Fry, of Vineland. Over 1,200 acres of [illegible] has been purchased on which will be [illegible] lake of ten acres. A dam half a mile [illegible] is to be constructed just north of Landis Ave., which will furnish 16 ft. of water. The company expects to furnish electricity at less cost than steam can be made. [illegible] C. Potter is Electrician and Supt.

PHILADELPHIA, PA.—We are officially advised that the Scofield Engineering Co., Arcade Bldg., Philadelphia, have been retained as consulting engineers by the Millard Construction Co., Philadelphia, in connection with their contract for the erection of the high-pressure pumping station for the city, at Seventh St. and Lehigh Ave. Construction will begin immediately.

PUNXSUTAWNEY, PA.—The Punxsutawney Water Co., proposes to install a 1,000,000-gallon gravity filter plant. Estimated cost, about $20,000. Charles E. Rutz is Supt.

*BERLIN, MD.—Bids will be received by the Mayor and Council of Berlin until 2 p. m., March 25, to remain open for acceptance or rejection for two calendar months at the option of the Mayor and Council for the construction and completion of a water-works system and an electric light system here.

BALTIMORE, MD.—Bids are asked by the Board of Awards until 11 a. m., March 17, for constructing a small reservoir to store spring water to supply a fountain in Druid Hill Park, together with all necessary supply and outlet. J. Barry Mahool is Pres. Bd.

WALKERSVILLE, MD.—Dr. John Nicodemus, B. I. Jamison, Franklin D. Harshman, Lincoln D. Dinterman and others have organized a company to construct water-works. Estimated cost, $20,000.

SPARTANBURG, S. C.—We are officially advised that the FRED M. PRESCOTT STEAM PUMP CO., Milwaukee, Wis., was awarded contract on March 1 by the Water-Works Commission for furnishing and erecting at the pumping station water-tube boiler, 110-HP. capacity and a 2,000,000-gallon high-duty pumping engine, at $8,840.

*JACKSON, MISS.—Bids will be received by the Mayor and Board of Aldermen, until noon, April 6, for furnishing a high-duty Water-works pumping engine of 6,000,000 gallons capacity. Specifications covering same can be had on application to Hamilton Johnson, City Engr., Jackson.

INDIANOLA, MISS.—The city has accepted plans by Huston & Cunningham, Consulting Engrs., 725 Maison Blanche Bldg., New Orleans, La., for improvements to water-works, including gasoline engine, 60 HP. direct connected with underwriter's pump, capable of delivering 500 gallons per min. against working pressure of 100 lbs. and a 250,000-gallon reservoir, brick power-house, about 1,500 ft. of 8-in. water pipe, including river crossing. Contracts will be let about the middle of March. Estimated cost, about $10,000.

PAINTSVILLE, KY.—The Paintsville Water & Light Co., incorporated with $300,000 capital stock, will construct a 2-story fireproof concrete building to cost $3,000 and reservoir to cost $6,000, the equipment to include an open suction double pump. The plant will have a capacity of 200,000 gallons. Bids for machinery will be received in about 30 days. W. T. Griffith, Pikesville, Ky., is Arch. and Engr.-in-Charge. George A. Glenn & Son, 921 North Eighth St., Philadelphia, Pa., have charge of equipment to be purchased.

MOUNT HEALTHY, OHIO.—We are officially advised that a water-works system will be installed here. Estimated cost, about $30,000. George Hornung & Son, Johnston Bldg., Cincinnati, Ohio, Consulting Engrs.

DELTA, OHIO.—We are advised that the Riggs & Sherman Co., 613 The Nasby, Toledo, Ohio, have been engaged by the city to prepare plans and specifications for municipal water-works.

GOSHEN, IND.—George H. Rimpler, City Clk., is asking for bids for laying 6-in. water mains in Second and Third Sts.

WARSAW, IND.—The Winona Light & Water Co. contemplates building and installing a modern filtration plant.

SOUTH BEND, IND.—The Water Works Board on Feb. 24 awarded contract for c.-i. pipe to the LYNCHBURG FOUNDRY CO., Lynchburg, Va., the lowest bidder, at $23.40 and $23.25 per ton. The contract calls for first quality and of not less than 250 tons nor more than 750 tons and to stand the test of 350 lbs. hydrostatic pressure before shipment.

COLEMAN, MICH.—The Riggs & Sherman Co., 613 The Nasby, Toledo, Ohio, we are advised, has been engaged by the city to prepare plans and specifications for municipal water-works.

*DOWAGIAC, MICH.—Bids are asked by the city until March 16 on steam pumps, all types, for water-works system, on changing present water-works system to take water from Pine Lake, including the erection of stand-pipe, giving capacity and cost of latter; also on a producer gas plant to be erected on site of present water-works station, same to be separate from present plant and to guaranty to include percentage of saving of maintenance and operating expenses over present system.

*OAK PARK, ILL.—Bids will be received by the Board of Local Improvements until 10 a. m., March 23, for the construction of a connected system of c.-i. water supply pipes in certain streets south of Madison St., being water system No. 1. Plans and specifications are now on file in the office of the Engineer of the Board of Local Improvements. This improvement will include approximately 19 miles of 6-in. to 12-in. water main, together with the necessary fire hydrants, gate-valves, fittings, etc. B. C. Brandstadt is Secy. Bd.

WAUKEGAN, ILL.—Bids will be received by H. Thacker, City Clk., until 8 p. m., March 15, for building and erecting one horizontal high-duty pumping engine, of the self-contained type, with a capacity of 6,000,000 U. S. gallons per 24 hrs., against a domestic head of 75 lbs. and a fire-pressure of 125 lbs.

*PLATTEVILLE, WIS.—Bids will be received by P. D. Hendershot, City Clk., until 7.30 p. m., April 2, for furnishing and installation of a pumping system for the city. Pumping system for two wells will be considered, using air lift apparatus, deep well turbine pumps driven by steam engine or steam turbines, and deep well power pumps, steam engine driven. For further information, plans and specifications apply to W. G. Kirchoffer, Consulting Engr., Madison, Wis.

LINCOLN, NEB.—Bids were opened on Feb. 24 by the Water Committee of the City Council for the construction of the new 1,000,000-gallon reservoir at the Mockett station. There were nine bidders, as follows: A. P. Chase, Clinton, Iowa, city plans, concrete, $15,140; without 5-year guarantee, $13,640. Hallanbeck & Thompson, University Place, $13,148. Gould Construction Co., Davenport, Iowa, $15,167. Cook Construction Co., Des Moines, Iowa, $13,133; Freeborn Engineering & Construction Co., Kansas City, own specifications, $13,909; city specifications, $15,980. National Construction Co., South Omaha, own specifications, $12,157; city specifications, $13,109. Olsen & Lawrence, Lincoln, reinforced concrete, $13,752; brick, $14,964. William Worthman, Lincoln, concrete, $12,890; brick, $14,763. Able & Roberts, Lincoln, concrete, $12,392; brick, $13,895. William Grant is City Engr.

GILLETTE, WYO.—The contract for constructing the new water-works system here has been let to H. A. SPIELMAN.

CHEYENNE, WYO.—Bids are asked by the City Council until 2 p. m., April 5, for furnishing 10,000 tons of c.-i. pipe, 200 tons of pig-lead and 15 tons of jute oakum, all material to be f. o. b., or other Union Pacific Ry. points. C. C. Carlisle is City Engr.

CHILDRESS, TEX.—The Fort Worth & Denver City Ry. Co., R. C. Gowdy, Resident Engr., Fort Worth, Tex., will, it is stated, improve water service, providing more adequate fire protection for yards and shops at Childress. Plans provide for the construction of steel tower and tank, tank to have capacity of 100,000 gallons and be 130 ft. high, laying of complete system of 8-in. mains, which are to be extended to all buildings and through switch-yards, construction of underground reservoir to be covered with reinforced concrete and have capacity of 200,000 gallons for reserve use; installation of pumping plant at Lake Scott to be operated by compressed air, laying of air line of 4-in. tubing from power-house to the lake, distance of about 15 blocks, which calls for another air compressor; laying of 6-in. main to Lake Keeler, 1½ miles west of Shops, where pump will also be installed. Estimated cost, $25,000.

*PRAGUE, OKLA.—Bids will be received by F. N. Newhouse, Town Clk., until 7 p. m., March 23, for furnishing items of material for the construction of a system of water-works and electric lighting plant as follows: Tower and tank, pressure pumps and necessories, motor driven deep well pumps, including motors; boilers, steel stack, feed pumps, heater and piping, automatic steam engine, alternator, switchboard, arc lights and regulator, galvanized pipe, c.-i. pipe, valves, hydrants and boxes, transmission lines fittings. Michel Cook Engineering & Construction Co., Joplin, Mo., are Engrs.

LAMAR, COLO.—R. CLOUGH, of Colorado Springs, Colo., has secured contract for improvement work for the Chivington Canal Co.

ENGLEWOOD, COLO.—The CONSOLIDATED ENGINEERING CO., of Denver, has secured contract for constructing the water-works here at about $100,000.

DENVER, COLO.—The Highland Mary Mining, Milling & Power Co. is preparing to begin work this spring on a reservoir at the junction of Jasper Creek with the south fork of Middle Boulder Creek. The dam for the new reservoir is to be 200 ft. high and about one mile long. The reservoir will impound about 1,000,000,000 cu. ft. of water, to be used both for irrigation and power. A 1,200-ft. pipe line is to be built, with a fall of 700 ft., capable of developing 6,000 HP.

GRIDLEY, CAL.—The Board of Trustees on Feb. 23 received bids as follows for installing pumping plants for the new city water-works now being constructed: D'Olier Engineering Co., 121 South Eleventh St., Philadelphia, Pa., for plant using steam and electricity, $9,460; no bid on gasoline and electricity plant. NEVADA MACHINERY & SUPPLY CO., San Francisco, steam and electricity plant, $7,820; electricity and gasoline plant, $8,751 (awarded contract); United Iron Works, San Francisco, no bid on steam plant; electricity and gasoline plant, $7,069. J. M. Ough, 110 Sutter St., San Frfancisco, steam and electricity plant, $8,708; electricity and gasoline plant, $7,555. G. W. Price Pump & Engine Co., 34 Tessie St., San Francisco, steam and electricity plant, $9,697; electricity and gasoline plant, $9,596.

MESA, ARIZ.—The City Trustees have passed an ordinance providing for the issuance of bonds for $50,000, for the purpose of constructing a water-works plant. Arthur A. Jones is Clk. Bd.

SALT LAKE CITY, UTAH.—We are officially advised that SHEA & ANDERSON, Salt Lake City, were awarded contract by the Board of Public Works on Feb. 26 for the construction of a reinforced concrete conduit north of Mill Creek, at $7,438.

DAVIS & HEUSER, Salt Lake City, secured the contract for the construction of the North Temple St. aqueduct, at $48,252. Louis C. Kelsey is City Engr.

TORONTO, ONT.—Bids will be received until noon, March 16, for the supply of c.-i. water-pipe for the year ending April 1, 1910; also for laying and jointing pipes, valves, hydrants, special castings, etc., to Dec. 31, 1909. Joseph Oliver, Mayor, is Chn. Bd. of Control.

WINNIPEG, MAN.—Bids will be received by Magnus Peterson, Secy. Civic Board of Control, until 11 a. m., March 13, for the supply of a quantity of valves, hydrants and specicls for extensions this year. H. N. Ruttan is City Engr.

WEYBURN, SASK.—Bids will be received by Samuel Murray, Secy.-Treas., until 8 p. m., April 7, for the following works in connection with the new water-works: Pipe-laying water tower, c.-i. pipes, fire-hydrants, and valves. Plans and specifications may be seen at the office of Willis Chipman, C. E., 103 Bay St., Toronto, and also at the municipal offices here.

EDMONTON, ALTA.—The city has passed by-laws authorizing the expenditure of $122,000 for extensions to the water-works system and $40,000 for extensions to the sewerage.

SEWERAGE.

(denotes that this work is advertised in Engineering News.)*

PROVIDENCE, R. I.—Walter F. Slade, Comr. Pub. Wks., is making plans for a new trunk line sewer in the Olneyville district. It will be about a mile in length and its diameter is figured at about five feet. Cost, about $200,000. The starting point shown on the plan is north of the Atlantic Mills, and the line follows the east bank of the Woonasquatucket River to Merino bridge. From the bridge it leads direct to Neutaconkanut Hill through Ophelia and Springfield St. to Plainfield St., and provides drainage for the Silver Lake district.

HARTFORD, CONN.—The Committee on the East Side sewer problem has submitted a report to the Common Council providing for the construction of an intercepting sewer at a cost of $300,000. The report has been referred to the Finance Committee.

NEW BRITAIN, CONN.—The Board of Sewer Commissioners on Feb. 20 awarded the contract for cement for the coming season's supply to the SWIFT & UPSON CO., of this city. The department will use six car loads or more. The company agrees to deliver it as the department needs it.

The contract for 50 manhole heads or more, as the department may need, was awarded to the SESSIONS FOUNDRY CO., of Bristol.

NEW LONDON, CONN.—The contract for the construction of the outfall sewer, settling basin and tile connections in State St. has been awarded by the Water and Sewer Department to the T. A. SCOTT CO., New London, at $11,804. Contract calls for 162 ft. 30-in. pipe sewer, 110 ft. 24-in. pipe sewer, 1,100 ft. 28-in. sewer, 1,100 ft. 28-in. sewer laid, settling castings, 24 cu. yds. concrete, one settling basin, 50 bents of piles and wale. Other bidders were: Thames Tow Boat Co., New London, $12,968; the McCay Engineering Co., $9,713 (lump sum).

NEW BRITAIN, CONN.—See item under Bridges.

BROOKLYN, N. Y.—Bids are asked until 11 a. m., March 17, by Bird S. Coler, Boro. Pres., for furnishing and delivering manhole heads and covers, etc., to the Bureau of Sewers.

SYRACUSE, N. Y.—The proposed sewer to be constructed in the southern section of the 17th Ward will be of brick or concrete. Estimated cost, about $60,000. Henry C. Allen is City Engr.

*WATERTOWN, N. Y.—Bids will be received by the Board of Public Works until 5 p. m., March 30, for the construction of a sanitary sewer in the Third and Fourth Wards. The sewer will be about 9,000 ft. in length of 27-in. to 36-in. vitrified tile laid in concrete; or of reinforced concrete pipe. Bids are asked on either or both kinds of construction. Plans and specifications may be seen at the office of E. W. Sayles, City Engr., and will be furnished to prospective bidders upon reasonable notice.

*RED BANK, N. J.—Bids are asked until 4.30 p. m., March 19, by the Borough Council for the construction of a sewer in and along Maple Ave from its intersection with Beach St., northerly to its intersection with Oakland St., a distance of about four city blocks. Complete specifications and all necessary information as to details of work and materials will be furnished upon application to George D. Cooper, C. E., Patterson Bldg., Red Bank. A. C. Harrison is Boro. Clk.

TRENTON, N. J.—The Council on Feb. 16 passed an ordinance providing for the construction of sewers in Paul and Hillcrest Aves., and Adeline St. It is also proposed to construct sewers in Garfield Ave. and Poplar St.

INDIANA, PA.—Bids will probably be received in June for the construction of a sewage disposal plant. Estimated cost, about $40,000. R. M. Mullen is Engr., Indiana.

BALTIMORE, MD.—The Colonial Park Estates Co., L. G. Turner, 208 Union Trust Bldg., contemplates the construction of a sewer system. Plans have not been completed.

ROANOKE, VA.—Bids are asked by R. H. Wills, City Clk., until noon, March 20, for the construction of a 20-in. terra cotta strength pipe for a storm drain. W. B. Bates is City Engr.

KINGSTON, N. C.—The city is considering the issuance of $75,000 of bonds for the extension of the sewer system and other improvements.

NASHVILLE, TENN.—The contract for pipe for the sewer to be built in West Nashville has been awarded by the Board of Public Works to HOWARD MOTZ & CO., of this city, at $18.97 a ton. The contract for special castings was awarded to J. H. FALL & CO., at $55 a ton f. o. b. Nashville. The contract calls for 1,041 tons of 18-in., 580 tons of 16-in. and 210 tons of 6-in. pipe, and about 13 tons of special castings.

CLEVELAND, OHIO.—Bids will be received by E. H. McIntosh, Secy., Board of Public Service, until noon, March 18, for the construction of sewers in various streets, avenues and courts.

PIQUA, OHIO.—Bids will be received by the Board of Public Service until noon, March 15, for the construction of a sanitary sewer in Spring St. to High St., and High to Harrison St. Plans and specifications are on file at office of Board Public Works. W. B. Mitchell is Clk.

PORTSMOUTH, OHIO.—MARION SHAW has been awarded contract by the city for constructing a brick sewer in Granview Ave.

OXFORD, IND.—Plans and specifications have been ordered, upon which bids will be asked, for the construction of an extensive sewer system here.

ANN ARBOR, MICH.—Bids will be received by the Board of Public Works until 7.30 p. m., March 17, for constructing 15,700 ft. of 8 and 10-in. sewers. E. W. Groves is City Engr.

CASSOPOLIS, MICH.—George S. Pierson, City Engr., Kalamazoo, Mich., will make preliminary surveys for a complete system of sewerage for the village of Cassopolis and county buildings.

CHICAGO, ILL.—JOHN P. DOUGHERTY has secured contract, at $4.90 per lin. ft. for cleaning the Lawrence Ave. sewer for 2,000 ft. from the lake. John J. Hanberg is Comr. Pub. Wks.

QUINCY, ILL.—Bids are asked by the Board of Local Improvements until March 15 for the construction of the north end sewer. The work will be let in sections. This sewer is to extend from Broadway to Maple St. and from Second to 24th St. The first part of the contract is to be for a brick sewer in the western portion of the city, and the rest for a pipe section in the eastern portion of the same district.

DES MOINES, IOWA.—Bids will be received by the City Council until 11 a. m., March 12, for a 12-in. vitrified clay pipe sewer on Pennsylvania Ave., from a point 22 ft. south of the south line of Maple St. to connect with sewer now in place on Lyon St., about 350 lin. ft. of sewer. George F. Poorman is City Clk.

EMPORIA, KAN.—BROWN & FERREN have been awarded contract by the city for constructing a storm sewer through Humboldt Park and LANG & FERREN for constructing a lateral sewer between Sylva and East Sts.

*WILLISTON, N. DAK.—Bids will be received by the city until 8 p. m., March 22, for performing all the labor and furnishing all the material required in and about the construction of a system of sanitary sewers approximately as follows: 1,123 ft. of 22-in., 744 ft. of 20-in., 793 ft. of 12-in., 1,278 ft. of 10-in., 1,015 ft. of 8-in., 14 manholes, and a concrete outfall. Will T. Poe is City Audr.

CAMDEN, ARK.—The city contemplates the construction of a sewer system in the western part of the city, creating sewer district No. 4. E. H. Carson is Mayor.

PUEBLO, COLO.—JAMES CAVIN has been awarded contract by the city, at 61 cts. per lin. ft., for laying 1,443 ft. of 8-in. sanitary sewer here.

SEATTLE, WASH.—R. H. Thomson, City Engr., has estimated the cost of constructing sewers in Aurora Ave. and other streets and in Linden Ave. and other streets at $13,000.

PHOENIX, ARIZ.—L. G. Knipe, of Phoenix, has presented estimates to the Sewer Committee for duplication of present privately owned sewer system and for extensions covering the residence districts. O. A. Tierney is City Engr.

NEW TORONTO, ONT.—Bids will probably be received in May for the construction of a sewage disposal plant here. Estimated cost, about $14,000.

EDMONTON, ALTA.—See item under Water Supply—Irrigation.

LADYSMITH, B. C.—Bids will be received until March 13 by the city for the construction of sewerage works. N. A. Morrison is Secy.

CULICAN (Sinaloa), Mex.—Olmsted & Gillelen, Consulting Engrs., 607 Wright & Callender Bldg., Los Angeles, Cal., are preparing the necessary plans for a modern sewer and drainage system for the city.

GARBAGE DISPOSAL.

(denotes that this work is advertised in Engineering News.)*

NEWTON, MASS.—Bids are asked by Alfred M. Russell, Clk. Bd. of Health, West Newton, until March 22, for the collection and disposal of house offal and swill in the city of Newton for a period of three years from May 1, 1909.

MIDDLETOWN, CONN.—The contract for street sprinkling has been awarded to A. BRAZOS & SONS, Middletown, at $2.360. There was one other bidder, Edward Hennessey, at $2,395.

RICHMOND, VA.—The annual budget contains an appropriation of $40,000 for a new incinerator for the Street Cleaning Department.

ASHLAND, OHIO.—We are officially advised that contract was awarded on March 1 by the City Council for garbage disposal for one year to W. E. FINLEY, of Ashland, at $95 per month. Other bidders were: D. A. McConnell, Ashland, $105; M. D. Shank, Ashland, $59 (bid withdrawn). Edgar Koehl is Clk.

MILWAUKEE, Wis.—Bids are asked until 10.30 a. m., March 31, by the Board of Public Works for constructing and erecting a refuse incinerating plant. Hering & Fuller, 170 Broadway, New York, are Consult. Engrs. Specifications are on file at the office of Engineering News, New York.

STREETS AND ROADS.

FORT WILLIAMS, (Cape Cottage post-office), ME.—Bids for the construction of concrete walks at Fort Williams, were received by Capt. F. J. Morrow, Constructing Q. M., U. S. A., Portland, Me., on Feb. 25 as follows: (a) Construction, concrete, per sq. yd.; (b) loaming and seeding, per sq. yd.; (c) total.: Northeastern Paving & Construction Co., Portland, Me., (a) $2.18; Peter F. Connolly, Boston, Mass., (a) $2.24; Frank & Ralph Williams, Boston, Mass., (a) $2.10, (b) 35 cts.; Maine Artificial Stone Co., Portland, Me., (c) $1,750.

NEW BRITAIN, CONN.—See item under Bridges.

*BRIDGEPORT, CONN.—Bids are asked by the Aldermanic Committee on Streets and Sidewalks until 8 p. m., March 26, for furnishing materials to lay about 23,580 sq. yds. of street paving. The quantities of material are as follows: 23,580 sq. yds. of brick or wood block, 3,620 cu. yds. of sand, 5,620 tons crushed stone, 4,325 bbls. of Portland cement. Specifications and blank forms for bidding may be obtained from M. F. McKenna, City Engr.

NEW LONDON, CONN.—Bids are asked by the Committee on Streets until 11 a. m., March 15, for paving State St. with vitrified brick, about 7,000 sq. yds.

BROOKLYN, N. Y.—Bids are asked until 3 p. m., March 11, by the Park Board, New York, for repairs to seven steam rollers.

READING, PA.—WILLIAM H. DRY, Crystal Palace Bldg., Reading, has been awarded contract for filling and grading Centre Ave., from Pike to Amity St.

ELKTON, MD.—Bids are asked until noon, March 12, by the County Commissioners of Cecil County for improving the public highway between Rising Sun and Principio, known as the Rising Sun-Principio road. John H. Terrell is Clk.

GRAHAM, N. C.—T. D. SCRUGGS, Durham, N. C., has secured the contract for grading roads in Alamance County.

*GRAHAM, N. C.—Bids are asked until 3 p. m., April 5, by the Road Commissioner of Alabama County for constructing about 40 miles of macadam roads and about 14 small bridges in Alamance County. Gilbert C. White, Durham, N. C., is Engr.

JACKSONVILLE, FLA.—The Board of Public Works has adopted resolutions providing for paving portions of Myrtle Ave., Phelps, Clay, Beaver, Laura Sts. and other thoroughfares.

CORINTH, MISS.—The city has voted $9,000 of bonds for street improvements, including graveling streets and laying brick crossings. J. P. Collier is Mayor.

COFFEEVILLE, MISS.—The city contemplates laying concrete sidewalks.

NEW ORLEANS, LA.—Plans and specifications for the paving of Carrollton Ave., from St. Charles Ave. to City Park Ave., are being prepared. Carrollton Ave. is subdivided into two sidewalk pavements, each 20 ft. wide, two roadways each 24 ft. wide, and a center parkway strip 62 ft. wide. The length of Carrollton Ave. to be paved is about 19,500 ft. and will embrace approximately 118,000 sq. yds. of pitch asphalt wearing surface 2 ins. thick, on a 6-in. concrete foundation and naphtha coat in lieu of binder. W. J. Hardee is City Engr.

RAVENNA, OHIO.—Bids will be received by the Village Clerk until noon, March 22, for furnishing of all the materials and labor required for the improvement of West Main St., from the C. & P. R. R. tracks to the corporation limits, west, by grading, draining, curbing and paving said parts of said street, together with storm sewer lines, catch basins. The materials for the base of foundation will be either gravel, broken stone, furnace slag or concrete; for curbing, either natural stone or concrete; for paving material, either vitrified paving block or asphalt paving block; and for the filler for vitrified block pavement, either cement grout or sand and cement.

CINCINNATI, OHIO.—Bids will be received at the office of the Board of County Commissioners until noon, March 26, for improvement of Vaughn Road from the south corporation line of Cincinnati to a point about 100 ft. south of Andrew Ave., Delhi Township. Stanley Struble is Pres.

BOWLING GREEN, OHIO.—Bids will be received by the County Auditors until noon, March 29, for grading, draining and macadamizing various public highways. F. W. Toan is County Audr.

FREMONT, OHIO.—Bids will be received by the County Auditor of Sandusky County until 11 a. m., March 15, for grading, draining and macadamizing 1.43 miles of road in Rice Township, petitioned for by Joseph Henry and others. Specifications, plans and profile are on file and may be seen in the County Surveyor's office. Harmon Wensinger is County Surv.

AKRON, OHIO.—DAN O'MARR has been awarded contract by the city, at $8,054, for paving Orleans and Mayfield Aves.

BEREA, OHIO.—Bids will be received by the Council until noon, April 5, for grading, curbing, draining and paving of Beech St. and East Grand St. Plans and specifications on file in the office of O. R. Stone, Clk.

*EAST LIVERPOOL, OHIO.—Bids will be received by Willis Davidson, Clk. of Liverpool Township, Columbia County, Ohio, at East Liverpool, until noon, March 30, for furnishing all material and doing all work necessary to complete a brick roadway in Liverpool Township. J. C. Kelly is Supt. of Improved Roads.

LIMA, OHIO.—Bonds for $75,000 have been issued by the City Council to carry out projected street paving improvements for which legislation has been passed with no funds for the citys' share. More than $200,000 is expected to be expended in street paving here during the coming year, and work will be started as soon as possible.

SIDNEY, OHIO.—We are officially advised that this city will construct about 20,000 sq. yds. of brick street paving this summer. W. R. Blake is City Engr.

*SPRINGFIELD, OHIO.—Bids are asked until noon, March 31, by the Board of Public Service for furnishing the necessary labor and material for improving Fountain Ave. from High St. to Perrin Ave., approximately 29,000 sq. yds. with asphalt, asphalt block, bitulithic granitoid cement block, vitrified brick or block, wooden block, macadam or Obispo brand of California asphalt. Willia H. Mahoney is Clk. Bd.

PETERSBURG, IND.—Plans are being prepared for the construction of 22 miles of gravel and macadamized roads in Pike County. Estimated cost, $54,500.

MORROCO, IND.—We are officially advised that surveys have been completed for 11½ miles of stone roads in McClellan and Colfax Townships, Newton County. Viewers' report will be filed April 5. W. H. Parker is Engr., Morroco, Ind.

INDIANAPOLIS, IND.—The Board of Public Works has ordered plans on which bids will soon be asked for the construction of an asphalt roadway in Washington Boulevard, from 13th St. to 32d St., and brick gutters; for asphalt roadway in 29th St., brick roadway in Olney St., from Fifth to 16th St.; asphalt roadway in Linwood Ave., from Washington St. to Michigan St., and brick roadway and curbing in Hamilton Ave., from Michigan St. to Washington St. Blaine H. Miller is City Engr.

INDIANA HARBOR, IND.—W. W' HATCH & SONS, Goshen, Ind., have secured contract, at $22,000, for constructing 218,000 ft. of sidewalk here.

RUSHVILLE, IND.—The Commissioners of Rush County are preparing to ask for bids for the construction of twelve miles of gravel roads in Anderson Township.

LOGANSPORT, IND.—Bids are asked by George W. Cann, Audr. Cass County, until noon, April 8, for the construction of 5,280 ft. of macadamized road in Jackson Township.

VINCENNES, IND.—Bids are asked by the Commissioners of Knox County until 2 p. m., April 6, for the construction of 6,070 ft. of gravel road in Vigo Township. John T. Scott is County Audr.

CRAWFORDSVILLE, IND.—Bids are asked by the Commissioners of Montgomery County until 10 a. m., April 6, for the construction of the Ham gravel road in Ripley Township. B. B. Engle is County Audr.

DANVILLE, IND.—Bids will be received by the Commisioners of Hendricks County until 10 a. m., April 5, for the construction of 15,565 ft. of gravel roads in Middle Township and 12,144½ ft. of gravel road in Center Township. William H. Nichols is County Audr.

GREENFIELD, IND.—Charles H. Troy, Audr., Hancock County, is asking for bids for the construction of a macadamized road in Buckcreek Township.

DANVILLE, IND.—The Board of Commissioners of Hendricks County has awarded a contract for the construction of the Jones rock roads, aggregating 45,971 ft., to LEROY R. HIATT, of Plainfield, at $25,000.

KENTLAND, IND.—The Commissioners of Newton County have let a contract for the construction of eight miles of macadam roads in Lake Township to STONER & WHITEAKKER, at $14,377.

BLOOMFIELD, IND.—The Commissioners of Greene County have let a contract for the construction of two gravel roads in Wright Township and one in Stockton Township to THOMAS E. SLINKARD, of Lyons, and for one gravel road in Smith Township to JAMES E. JEAN, of Worthington. Aggregate cost, $24,344.

MASON, MICH.—Bids will be received by the City Clerk until 7 p. m., March 22, for furnishing all labor, material, etc., for the construction of approximately 5,600 sq. yds. of brick pavement, together with foundation, concrete combined curb and gutter and all other details. Plans, profiles and specifications for the work are on file with the City Clerk. Contractors are directed to examine the streets and plans and make their own estimates of material.

ROCHELLE, ILL.—We are officially advis d that the city of Rochelle will put in about 14 blocks of brick paving early this season. W. B. McHenry is Mayor and Chmn. of Board of Local Improvements. No engineer has as yet been employed.

WAUKESHA, WIS.—The Board of Public Works on Feb. 26 let the contract for macadamizing seven streets to the MARQUETTE CONSTRUCTION CO., Chicago, at $32,203, the lowest bid. The streets for which the contract was let are as follows: James St., from College Ave. to McCall St.; Charles St., from College Ave. to McCall St.; Wright St., from East Ave. to Charles St.; Barney St., from McCall St. to Broadway; College Ave., from East Ave. to Walton Ave.; Carroll St., from East Ave. to Maple Ave.; and West Park Ave., from Maple Ave. to West Ave.

WAHPETON, N. DAK.—Bids are asked by the Commissioner of Indian Affairs, Washington, D. C., until 2 p. m., March 25, for cement sidewalks at the Wahpeton School. Watson C. Randolph is Supt.

JOPLIN, MO.—V. E. KOCH has been awarded the contract, at $8,946, for grading and paving with vitrified brick, Fifth St., from a line 4½ ft. west of and parallel to center lines of main track of the Kansas City Southern Ry. Co. to east line of Main St. Hiram Phillips is City Clk.; J. B. Hodgdon is City Engr.

PARIS, TEX.—Bids are asked until March 22 by O. B. McKnight, City Secy., for paving. Estimated cost, $15,000 to $25,000.

TEXARKANA, TEX.—The Commissioners' Precinct No. 1, including the city of Texarkana, is preparing to expend $250,000 authorized for road improvements. The plans call for the construction of four trunk roads, each about twelve miles long, leading out of the city in various directions on the Texas side of the State line, each road to be graded and graveled, and city streets connecting with these roads to be improved.

SEATTLE, WASH.—The contract for concrete walks on West 73d St. and other streets has been awarded to GEORGE HANSEN at $6,418.

SEATTLE, WASH.—R. H. Thomson, City Engr., has reported the estimated cost of the following street improvements: First Ave. South, planking and filling, $32,500; Maple Leaf Pl. and other streets, grading and curbing, $11,000; Western Ave. and other streets, asphalt paving, etc., $153,000.

LOS ANGELES, CAL.—Bids will be received by the Clerk of the Board of Supervisors of Los Angeles County until 2 p. m., March 22, for furnishing all labor and material for making the necessary excavation and fills for, and constructing certain cement curbs, gutters and wooden catchbasins on California Ave. and the Los Angeles and Santa Ana road in the East Whittier road district, in Los Angeles County. C. G. Keyes is Clk.

REDLANDS, CAL. — MUSHRUSH & SPRAGUE have been awarded the contract for work on Stevenson Ave., at $4,269. Other bidders were: George H. Osward, $4,322; J. E. Haddock, $4,777; Chamberlain & Williams, $4,889; A. W. McDonald, $4,621.

PRINCE ALBERT, SASK.—See item under Miscellaneous Contracts—Stone Crusher, etc.

LETHBRIDGE, ALTA.—The city has decided to spend $64,000 in streets, sidewalks, sewers and water mains this year.

MANUFACTURING PLANTS.

(denotes that this work is advertised in Engineering News.)*

DORCHESTER, MASS.—We are officially advised that the Boston Insulated Wire & Cable Co., Bay St., Dorchester, have closed contract with the ABERTHAW CONSTRUCTION CO., Boston, Mass., for the construction of a new concrete mill comprising a main 2-story building, 180 ft. by 82 ft., a 1-story vulcanizing building, 96 ft. by 25 ft., and an engine and boiler room, 50 ft. by 38 ft. Work is to be started April 1.

UNIONVILLE, CONN.—Charles W. House & Sons, manufacturers of felt supplies, whose plant was burned recently, involving a loss of approximately $75,000, have decided to rebuild as soon as the insurance has been adjusted. Temporarily the company will occupy a part of the plant of the Case Mfg. Co., and the machinery that was not badly damaged by the fire is being installed in the new quarters.

BUFFALO, N. Y.—The D. P. Rumsey estate have let contract to JAMES N. BYERS, 461 Linwood Ave. for a 1-story and basement brick factory building, 38 x 117 ft., at 88 Exchange St.

The Graphic Arts Co. has let contract for construction of a 1-story brick addition to its plant at Halbert and Main Sts. to GEORGE KEMPF'S SONS, 99 Locust St. Cost, $6,500.

LITTLE FALLS, N. Y.—The Barnett Leather Co. will erect a 4-story and basement factory building 100 x 110 ft. Plans have been prepared by Linn Kinne, Arch., Utica City National Bank Bldg., Utica, N. Y., who will receive bids.

ORISKANY FALLS, N. Y.—The Utica Knitting Co., Utica, N. Y., will erect a 3-story and basement addition to its plant here, 35 x 140 ft., to be known as Mill No. 3. Linn Kinne, Utica City National Bank Bldg., Utica, N. Y., is Arch. Estimated cost, $15,000. Bids received by owners.

GLENS FALLS, N. Y.—A $25,000 factory is to be erected at Glens Falls by the Yorke Shirt Co. It will be 41 x 156 ft., and, when it is completed the present plant will be operated as an auxiliary. The force of 400 now employed will be augmented by about 600 for both buildings.

MANAYUNK (Philadelphia post-office), PA.—Edward Fay & Son, 2966 Richmond St., Philadelphia, have plans from Sauer & Hahn, Archs., 1112 Chestnut St., Philadelphia, for a factory building at Manayunk.

ELLWOOD CITY, PA.—The Shelby Steel Tube Co., Frick Bldg., Pittsburg, is preparing plans for a new open hearth steel plant that will be built here this summer, and located near the present plants of the company. Contracts for the buildings and equipment will be awarded within the next four months.

SHARON, PA.—The Stewart Iron Co. will make improvements amounting to about $150,000 at the plant here. These will include a new steel traveling ore bridge, unloading machinery and coal, coke and limestone bins. All equipment at the plant will be operated by electricity. The proposed improvements will be started about the end of this month.

Lawrence Seaton, Secy. of the McIntosh Car Seal Mfg. Co., of Denver, Colo., is here looking for a site upon which he can build a plant for the manufacture of car seals. This plant will be a branch of the company's plant at Denver, and will cost about $25,000, exclusive of the site. The company desires to locate an Eastern branch near the tin plate mills, of which there are a number here. If suitable arrangements can be made, it is the intention of the company to erect the plant at once.

CARNEGIE, PA.—The Scott Iron & Steel Co., a new concern, has been formed by John A. Scott and George P. Steele, both of Pittsburg, and J. C. Stauffer, of Carnegie, Pa. It will be incorporated this month under the laws of this state, with an authorized capital of $100,000. The company has purchased the plant of the Carnegie Tube Co., at Carnegie, and after remodeling it and installing considerable new equipment, much of which will be of special design, will manufacture horseshoes under a new process. The company will employ about 100 men, and expects to have the plant ready to place in at least partial operation about April 1, 1909.

DUKE, N. C.—Announcement is made that the Erwin Cotton Mills Co. has chosen Duke as the location for its $1,000,000 gray goods mills, which is to have 50,000 spindles and 1,000 employees.

ZEBULON, N. C.—The Southern Spinning & Mfg. Co., of this city, has engaged Fred S. Hinds, 19 Milk St., Boston, Mass., as Arch. Engr. for the proposed 5,000-spindle plant. He is preparing the plans. Hosiery yarns and a special fabric will be the product.

FORT DADE, FLA.—Bids are asked by the Constructing Quartermaster, U. S. A., until 8 p. m., March 29, for repairs and alteration of ordinance workshop here.

BIRMINGHAM, ALA.—Swift & Co. have awarded contract to A. J. KREBS CO. for repairs to and remodeling of 4-story building, meat market and refrigerator, electric lighting, freight elevator. Cost, $19,500.

BIRMINGHAM, ALA.—Charles J. and H. C. Graham, Secy. and Treas. of Graham Nut Co., 1317 West Carson St., Pittsburg, Pa., have acquired controlling interest in the American Bolt Co., East Birmingham, it is stated. They will erect an additional building and install machinery to increase the capacity. The new officers of the American Bolt Co. are: Pres., Charles J. Graham; Vice-Pres. and Treas., Harry C. Graham; Asst. Treas., Charles W. Gray, each of Pittsburg; Vice-Pres., John Wirth, of Birmingham.

MERIDIAN, MISS.—The Alden Knitting Mills, 2309 Decatur St., New Orleans, La., will build a branch plant at Meridian, Miss., it is stated. This company has secured a site and will arrange for beginning the erection of the necessary buildings soon. It operates at its home plant 5,000 mule spindles, 250 knitting machines, etc., employing 350 operatives.

FAYETTEVILLE, TENN.—The management of the Elk Cotton Mills, Fayetteville, has decided to enlarge the plant, and plans to about duplicate the equipment. Stuart W. Cramer, of Charlotte, N. C., has been engaged to prepare plans and furnish the new machinery required. The plant now operates 6,000 ring spindles, etc., on yarn.

TOLEDO, OHIO.—Incorporation papers have been sent to Columbus for the Ohio Electric Carriage Co., which will have a capital of $200,000 and manufacture inside coupes of the highest grade. Among the stockholders are H. P. Dodge, R. R. Lee, James Brown Bell, E. W. Baumgardner, F. H. Dodge, H. E. Marvin, M. V. Barbour, Otto Marx, George S. Mills, T. J. Watson, M. H. Burgert, F. D. Suydam, Jr., and A. M. Chesbrough. H. P. Dodge will be the Gen. Mgr.

John W. Rapparlie has purchased from the Siess Realty Co. the vacant property at 22d and Dorr Sts. Mr. Rapparlie will improve the lot at once with a 2-story factory building, in which he will manufacture automobile and carriage woodwork.

CLEVELAND, OHIO.—Bids are asked until April 1 by Dercum & Beer, Archs., Schofield Bldg., for a 1-story factory building for the Beckman Mills.

ELKHART, IND.—The Star Match Co., recently incorporated, is preparing to ask for bids for the construction of a 2-story concrete building, 76 x 196 ft., fireproof, in the new Hudson-Sterling factory district. W. W. Sterling and Julius Russell are incorporators.

ELKHART, IND.—The Strubler Scale Co. is preparing to erect a factory building on the site of the former C. A. Foster carriage and wagon factory and will begin work this spring. The building will be of brick, two stories high, 40 x 225 ft., with an L and 1-story building, 30 x 60 ft. The location for the factory is north of Sycamore St. on the bank of the Elkhart River, near the entrance to Island Park.

BRAZIL, IND.—The Brazil Machine & Foundry Co. has been incorporated with a capital of $50,000. The company proposes to build and equip a foundry and machine shop for the manufacture of clay working machinery, wire fence and other machinery. Daniel H. Davis, Lewis McNutt and E. A. Baker are Dirs.

MUNCIE, IND.—The Interstate Automobile Co. has been incorporated, capitalized at $300,000. The object of the corporation is to establish, equip and operate a plant for the manufacture of automobiles and other vehicles, parts of vehicles, accessories, etc. T. F. Hart, J. M. Haring, F. C. Ball and T. F. Rose are Dirs.

GOSHEN, IND.—It is reported that the Thiele Bros. will enlarge their ice plant to double present capacity. Bids will be in order as soon as plans are completed.

MASON CITY, IOWA.—The Reed Mfg. Co., of Newark, N. J., will locate here, it is stated. At a meeting held recently a company was formed with a capital of $300,000. The concern makes tin and galvanized wire.

DAVENPORT, IOWA.—It is the intention of the Standard Table Oil Cloth Co. to build an addition to its plant here. An expenditure of $100,000 has been authorized by the Board of Directors for the project. The work is expected to be started and completed during the summer, and [illegible] provide for an increase in the output of [illegible] 25%. A new engine for the enlargemen[illegible] be installed.

BELLINGHAM, WASH.—[illegible] press reports state that the Astoria & P[illegible] Sound Packing Co. will expend $25,0[illegible] its cannery at Chuckanut Bay, repair[illegible] the buildings, building storehouses and [illegible] ing new machinery.

SANTA BARBARA, CAL.—[illegible] is stated that an oil refinery is to be [illegible] at Santa Barbara. Cost, $1,000,000. [illegible] promoters are the Rahn Realty Investment Co., Stimson Bldg., who have acquir[illegible] 000 acres of oil land in the Carpinteria [illegible]ict.

SAULT STE. MARIE, [illegible]—The open hearth furnaces of the Algo[illegible] Steel Co. here are to be extended this y[illegible] according to the New York "Sun." Oth[illegible] improvements are to follow. Blast furnaces [illegible] be erected and also a structural steel [illegible]

WINNIPEG, MAN.—W. W[illegible] Blair, Arch., is preparing plans for a 200 [illegible] 80 ft. 5-story brick, stone and steel manu[illegible]ring block for various firms.

The Canadian Northern [illegible] Co. has decided to electrify its shops [illegible]

MEXICO CITY, MEX.—An [illegible]ement has been entered into between the [illegible]xican government and the National M[illegible]n Packing Co. for the establishment of [illegible] houses and works for the treatment [illegible] meat obtained from the slaughteri[illegible] of cattle, sheep, and pigs. This will in[illegible] the construction of refrigerating [illegible]blishments, etc., and the company will be [illegible]wed to import free of duty all the mach[illegible]ry, appliances and equipment required [illegible] the erection and operation of the foreg[illegible] plants.

PHILIPPINES.—See item under U. S. Possessions.—Boilers, ice plants, etc.

MISCELLANEOUS CONTRACTS.

U. S. RECLAMATION SERVICE.—Items regarding irrigation, canal projects, etc., will be found under Water Supply—Irrigation.

DITCH.—Bluffton, Ind.—Bids are asked by B. A. Batson, Supt. of Drains, until 10 a. m., March 23, for the construction of the Fulton Ditch.

SIGNAL SYSTEM.—Vancouver, B. C.—Bids are asked by William McQueen, City Clerk, until 4 p. m., March 25, for installing complete a police patrol signal system.

CEMENT.—Hamilton, Ont.—The city has awarded the contract for the supply of this year's cement to the LAKEFIELD PORTLAND CEMENT CO., at $1.23½ per bbl.

CEMENT.—Victoria, B. C.—Contract has been let by the City Council to R. P. RITCHET & CO. to supply all the cement required by the city this year at $2.51½ a bbl.

TIMBER.—Ottawa, Ont.—Bids will be received by L. K. Jones, Secy. of the Dept. of Railways and Canals, until 4 p. m., March 31, for all timber required for the Rideau Canal during 1909.

WIRELESS STATION.—Fort Riley, Kan.—Bids are asked by Capt. W. M. Whitman, Constr. Q. M., until 10 a. m., March 29, for construction and plumbing of wireless telegraph station building.

DITCH.—Crookston, Minn.—Bids will be received until March 18 by H. J. Welte, County Audr., for constructing Ditch No. 79, requiring about 35,650 cu. yds. excavation. Estimated cost, $5,041.

WIRE FENCE.—Fort Moultrie (Moultrieville post-office), S. C.—Bids will be received by the Constructing Quartermaster, U. S. A., until March 30 for constructing wire fence around reservation Battery Capron.

*TUNNEL.—Boston, Mass.—Bids are asked by the Boston Transit Commission, B. Leighton Beal, Secy., 15 Beacon St., until noon, March 30, for constructing Section 1 of the tunnel under Beacon Hill for the Cambridge connection.

DREDGING.—Sacramento, Cal.—Bids were received on Feb. 23 by M. J. Desmond, City Clerk, for dredging and leveling in South Side Park. The contract was let to WELLS & O'BRIEN, State House Hotel, Sacramento, at 44.4 cts. per cu. yd.

WALLS AND GATES.—Knoxville, Tenn.—Bids are asked by George Ruhlen, Depot Q. M., Jeffersonville, Ind., until 10 a. m., April 3, for rebuilding stone walls with entrance gates and constructing sidewalks at National Cemetery, Knoxville, Tenn.

*LIGHT-HOUSE.—Wilmington, Del.—Bids are asked until 11 a. m., April 5, by the Light-House Engineer, Wilmington, for erecting the superstructure of the new lighthouse at the Elbow of Cross Ledge Light Station, Delaware Bay, N. J.

*STEEL.—Sault Ste. Marie, Mich.—Bids are asked until 3 p. m., March 26, by Lieut.-Col. C. McD. Townsend, Corps Engrs., U. S. A., Detroit, Mich., for furnishing and delivering at Sault Ste. Marie, Mich, about 80 tons of steel, etc., for canal gate.

DREDGING.—Kingston, Ont.—The contract for the submarine rock excavation and dredging for improving the middle channel in the St. Lawrence River, between Brockville and Kingston, has been awarded to FRANK GILBERT, of Montreal, Que.

*VACUUM CLEANING SYSTEM.—Atlanta, Ga.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., March 26, for the installation of a vacuum-cleaning system for the U. S. post-office and court-house at Atlanta, Ga.

STONE CRUSHER, ETC.—Prince Albert, Sask.—Bids will be received by C. O. Davidson, Mayor, until 8 p. m., March 18, for a stone crusher, elevator and screens, electric motor and steam roller, all of which are required for road making. F. A. Creighton is City Engr.

GAS BUOYS.—Tompkinsville, N. Y.—Bids were received as follows on Feb. 16 by the Light-House Inspector, Tompkinsville, N. Y., for furnishing two Type B III gas buoys: SAFETY CAR HEATING & LIGHTING CO.,

2 Rector St., New York, $3,600 (accepted); M. W. Kellogg & Co., New York, $3,900; American Welding Co., Carbondale, Pa., $4,700.

BREAKWATER. — Cleveland, Ohio. — Bids were received on Feb. 25 by Lieut.-Col. John Mills, Corps Engrs., U. S. A., for constructing an extension of breakwater of 6,000 ft. to Gordon Park. About $250,000 available. Contract has been let to the BREAKWATER CO., Hickox Bldg., Cleveland.

RIPRAP BUILDING STONE.—Washington, D. C.—Bids will be received until March 31 by Major Sidney J. Morrow, Corps Engrs., U. S. A., Washington, D. C., for furnishing and placing riprap stone on sea wall, Anacostia River, D. C., also same time and place for furnishing building stone in Potomac Park.

DITCH.—Vandalia, Ill.—Bids will be received by the Commissioners of Grassy Lake Drainage District until March 19 for excavating main ditch, about five miles in length, about 120,000 cu. yds. Brown & Burnside, Attys.; P. E. Fletcher, St. Elmo, Ill., is Engr.; W. H. Crumbaugh is Chn. Comrs.

STEAM COLLIER.—Washington, D. C.—Bids were received on Dec. 15 by V. H. Metcalf, Secy. Navy Dept., for constructing, by contract, one steam collier (fleet collier No. 4, Cyclops). The contract has been awarded to the WILLIAM CRAMP & SONS SHIP & ENGINE BUILDING CO., of Philadelphia, at $822,500.

DITCH.—East St. Louis, Ill.—Bids were received on March 2 by the Drainage Commissioners, Drainage Dist. No. 1, St. Clair County, for the excavation of 6,200 lin. ft. of ditch, with a base width of 15 ft. and with slopes of 1 to 1, and containing 22,000 cu. yds. of excavation. The contract was awarded to R. A. BROWN & CO., Washington, Ind., at 22 cts. cu. yd. W. J. Crocken, Engr., City Hall. F. B. Harding, Clerk of Board of Drainage Commissioners, at 344 Collinsville Ave., East St. Louis, Ill.

CLEANING DITCHES.—Harvel, Ill.—Bids were received on Feb. 23 by the Board Drainage Commissioners, Thomas Commerford, Pres., Harvel, for cleaning out the open ditches of Union Drainage Dist. No. 1, towns of Bois D'Arc and Harvel, as follows: 29,920 lin. ft. of main ditch and 5,890 ft. of lateral ditches, estimated to require the excavation of 10,860 and 1,870 cu. yds., respectively. Contract has been awarded to A. J. KLENTSCHY, of Cairo, Ill., at 35 cts. cu. yd. J. W. Dappert is Engr., Taylorville.

SEAMLESS BRASS TUBING.—Tompkinsville, N. Y.—The following bids were received on Feb. 17, by the Light-house Engineer, Tompkinsville, N. Y., for seamless brass tubing for lamps, etc.: (1) 30 cylinders, (2) 60 cylinders, (3) 30 cylinders: HEMPHILL ENGINEERING CO., New York, (1) 29 cts. per lb., (2) 30 cts., (3) 30 cts. (awarded contract); Manhattan Supply Co., New York, (1), 35.5 cts., (2) 35.5 cts., (3) 35.5 cts.; R. W. Geldart, New York, (1) 34.5 cts., (2) 36 cts., (3) 36 cts.; U. T. Hungerford Brass & Copper Co., New York, (1) 33 cts., (2) 34 cts., (3) 34 cts.; Randolph Clowes Co., New York, (1) 33 cts., (2) 34 cts., (3) 34 cts.

DOCK REPAIRS.—Lakeside, Ohio.—The Executive Committee of the Lakeside Association has let the contract for an entrance and pavilion at the Lakeside dock, to PETTIBONE & CO., of this town. The structure will cost, when completed and furnished, about $10,000. The lower floor will be used for the gateways, dock offices, boathouse and other business; the second floor for lunches, ice cream and observation parlors, with executive offices. The dock is to be reconstructed, the English auditorium reroofed and otherwise repaired, and the German auditorium reseated. The hotel is to undergo some changes and improvement. T. S. Maxwell, of Cleveland, Mgr.

*CHANNEL EXCAVATION.—Chicago, Ill.—Bids are asked by I. J. Bryan, Clerk of the Sanitary District of Chicago, American Trust Bldg., Chicago, until noon, March 24, for excavating a channel, designated as Section Nine of the North Shore Channel, and for performing certain collateral bridge work. The work for which bids are invited, includes the excavation of a channel about 5,000 ft. long and containing about 375,000 cu. yds. of earth, the construction of substructure and the erection only of the superstructure of a highway bridge at Devon Ave., all situated in the Township of Niles, and the City of Chicago, Cook County. All work to be completed before Sept. 1, 1910. Robert R. McCormick is Pres.

PILES.—Superior, Wis.—Bids were received as follows on Feb. 15 by Lieut.-Col. Graham D. Fitch, Corps Engrs., U. S. A., Duluth, Minn., for furnishing and delivering piles at Superior Entry, Wis.: (a) or about 134,620 lin. ft. of piles, delivered in water at Superior Entry, per lin. ft.; (b) total—Duluth Log Co., Duluth, Minn., (a) 16¾ cts.; (b) $22,078; A. J. Macdonald, Superior, Wis., (b) $23,758 (bid irregular); Zehith Cedar Co., Duluth, (a) 16½ cts., (b) $22,212; Martin Bros., Duluth, (a) 16¾ cts., (b) $22,548; Lake Superior Piling Co., Duluth, (a) 18 cts., (b) $24,232; H. YOUNKER, Ashland, Wis., (a) 13½ cts., (b) $18,174 (awarded contract); the Virginia & Rainy Lake Co., Duluth, (a) 19 cts., (b) $25,578. Noted fully on Feb. 25.

BARGE CANAL.—Albany, N. Y.—Bids are asked by F. C. Stevens, Supt. Public Works, until noon of March 31 on three additional Barge Canal contracts as follows: On Contract No. 29, for the improvement of the Erie Canal from a point near Sterling Creek to the Oneida-Herkimer county line, a distance of four miles, including the construction of Lock No. 19 at Sterling Creek and two new bridges; completion date, Dec. 31, 1911; on Contract No. 32, which is for doing all the work necessary for the construction of lock gates, needle beams, needles and lock valves at Lock No. 6, at Lock No. 9 and at Lock No. 8; and on Contract No. 36, which calls for 18 winches for movable dams, 16 in the Mohawk River at Scotia, Rotterdam, Cranes Village, Amsterdam, Tribes Hill, Yosts, Canajoharie and Fort Plain, and two in the Genesee River at Rochester. Frank M. Williams is State Engr., Capitol, Albany.

DRAINAGE DITCHES. — Emmetsburg, Iowa.—Bids were received as follows on March 3 by the Board County Supervisors for constructing Drainage Ditch No. 32; 12,000 cu. yds. excavation: COOK CONSTRUCTION CO., Des Moines, Iowa, 8.89 cts. (awarded contract); R. A. Elby & Co., Marshalltown, Iowa, 10.95 cts.; R. H. McWilliams, Mattoon Ill., 9.45 cts.; E. O. Rood, Britt, Iowa, 10 cts.; Wilcox & Bryant, Emmetsburg, Iowa, 9.25 cts.; Boyl's & Lizenby, Winaniac, Ind., 10.4 cts.; Mulgren & Boyce, Dubuque, Iowa, 12.35 cts.

Tile work—JOHN F. REYNOLDS, Sherwood, Iowa, $6.059 (awarded contract); R. A. Elzy Co., $6,973.

Following are the bids received at the same time for the entire work on Drainage Ditch No. 29: JOHN PETERSON, Clear Lake, Iowa, $11,000 (awarded contract); John F. Reynolds, Sherwood, Iowa, $11,005; R. A. Elzy & Co., Marshalltown, $15,428. Sim R. Stedman, Emmetsburg, is County Audr.

DITCH.—Fairmount, Minn.—Bids were received as follows on March 3 by H. P. Edwards, County Audr., for constructing County Ditch No. 11, consisting of 15½ miles of open ditch, 417,881 cu. yds. earth

(Continued on page 82.)

CONTRACT PRICES.

DRAINS.—Baltimore, Md.—Itemized bids have been given out which were received by the Board of Awards on Dec. 16th, as follows, for Contract No. 6, for constructing storm water drains. Calvin W. Hendrick is Ch. Engr., Sewerage Commission. (A) BOOTH & FLYNN, LTD., Pittsburg, Pa. (awarded contract); (B), T. J. O'Connell, Baltimore; (C), T. Wallace Reilly, Baltimore; (D), David Peoples, Philadelphia; (E), J. Connelly Construction Co., Baltimore; (F), Metropolitan Contracting Co., Baltimore; (G), Ryan & Reilly, Baltimore:

	(A)	(B)	(C)	(D)	(E)	(F)	(G)
240 lin. ft. excav. and refill for 114" horseshoe drain	$1.00	$2.90	$0.86	$2.00	$4.70	$1.00	$17.51
1,218 lin. ft. excav. and refill for 96" circular drain	3.20	3.75	4.91	5.20	9.00	12.00	13.23
110 lin. ft. excav. and refill for 42" circular drain	4.25	5.00	3.14	4.10	6.75	10.00	10.71
110 lin. ft. furnishing material and building 42" circular brick drain	5.25	6.00	6.65	5.50	6.50	7.10	6.74
110 lin. ft. furnishing material and building 42" circular concrete drain	4.08	5.00	5.48	5.50	6.50	5.65	5.05
22 lin. ft. excav. and refill for 36" circular drain	2.79	1.25	1.95	3.00	2.50	5.00	2.50
22 lin. ft. material and building 36" circular brick drain	4.92	5.00	5.23	5.00	5.00	6.00	6.50
1,005 lin. ft. excav. and refill for 24" circular drain	.95	1.00	.90	1.00	.90	1.15	1.25
1,005 lin. ft. furnishing and laying 24" vitrified pipe drain	1.23	1.15	1.54	1.00	1.50	1.50	1.70
272 lin. ft. excav. and refill for 18" circular drain	.96	.90	.73	1.00	.75	1.00	2.00
272 lin. ft. furnishing and laying 18" vitrified pipe drain	.78	.65	.85	1.00	.90	1.00	1.15
574 lin. ft. excav. and refill for 15" circular drain	.47	.80	.80	.80	.85	.75	1.00
574 lin. ft. furnishing and laying 15" vitrified pipe drain	.63	.50	.50	.80	.85	.75	1.00
490 lin. ft. furnishing and laying 15" inlet con., includ. excav. and refill	1.05	1.40	1.70	1.50	1.40	1.75	2.00
25 lin. ft. furnishing and laying 12" inlet con., includ. excav. and refill	1.05	1.25	1.90	1.40	1.35	1.65	1.90
180 cu. yds. brickmasonry in Portland cement mortar	15.00	15.00	14.00	16.00	15.00	18.00	18.00
10 cu. yds. vitrified brick masonry in Portland cement mortar	25.00	25.00	22.00	23.00	20.00	20.00	23.00
1,040 cu. yds. concrete masonry class "A"	6.80	7.75	8.00	8.50	8.00	8.50	12.80
1,665 cu. yds. concrete masonry, class "B"	6.40	7.75	8.00	7.25	7.30	7.50	12.30
10 cu. yds. concrete masonry, class "C"	6.50	7.25	8.00	7.00	7.90	6.50	10.00
1,000 lbs. corrugated or twisted steel bars	.04	.04	.05	.06	.06	.05	.04
300 lin. ft. excav., furnish. and laying 6" underdrain, includ. gravel refill	.25	.25	.50	.40	.40	.25	.75
1,220 lin. ft. excav., furnish. and laying 8" underdrain, includ. gravel refill	.28	.30	.50	.45	.50	.40	.90
10 M. ft. B. M. sheeting, bracing or shoring left in place	16.00	16.00	16.00	16.00	16.00	16.00	16.00
5 M. ft. B. M. lumber in foundations	30.00	30.00	35.00	50.00	40.00	45.00	50.00
50 cu. yds. rock excavation	4.50	4.50	4.50	4.50	4.50	4.50	4.50
4,000 cu. yds. spreading embankment, not including material	.20	.15	.10	.45	.15	.25	.75
2 15" slants built in	2.50	2.00	1.85	1.50	2.00	5.00	3.50
1 12" "Y" branches in place	2.00	2.00	1.75	1.25	2.00	2.50	3.50
15 cu. yds. excav. for bellmouths, includ. sheeting and shoring	3.50	1.50	4.00	6.00	3.00	1.50	2.50
10 cu. yds. excav of extra depth, not includ. excav. for underdrains	1.50	1.50	1.50	1.50	1.50	1.50	1.50
10 cu. yds. gravel refill below subgrade, not includ. gravel around underdrains	2.25	2.25	2.25	2.25	2.25	2.25	2.25
25 sets manhole frames and covers, complete	15.00	11.00	11.00	15.00	15.00	16.00	12.00
160 lin. ft. brick manholes, complete, includ. excav. and refill	4.63	4.00	4.75	5.00	4.80	5.50	4.50
160 lin. ft. drop manholes, complete, includ. excav. and refill	8.71	5.00	8.00	9.00	8.00	15.00	8.00
100 lin. ft. drop well, complete, includ. excav. and refill	10.00	8.00	8.00	10.00	8.00	12.00	9.00
50 cu. yds. excav. for drop wells, includ. sheeting and shoring	1.50	1.50	4.00	5.00	3.00	2.50	3.00
C.-i. pipe culvert under B. & O. R. R., complete, includ. excav. and refill (lump sum)	600.00	500.00	1,290.50	3,000.00	2,000.00	2,000.00	3,462.00
125 8" G.-i. manhole steps	.75	.25	.45	.50	.50	.50	.40
10 Class "A" inlets, not includ. heads, but includ. excav. and refill, complete	25.00	25.00	45.00	50.00	45.00	35.00	50.00
7 Class "B" inlets, not includ. heads, but includ. excav. and refill, complete	25.00	25.00	45.00	50.00	44.00	35.00	45.00
1 Class "C" inlet, not, includ. heads, but includ. excav. and refill, complete	25.00	25.00	45.00	50.00	43.00	32.00	42.00
5 Class "E" inlets, includ. gratings, excav. and refill, complete	73.00	25.00	45.00	60.00	50.00	30.00	57.00
7 Flush inlet heads for "A" inlets, includ. frame and cover, complete	18.00	15.00	15.00	20.00	18.00	18.75	17.50
3 depressed heads for "A" inlets, includ. frame and cover, complete	18.50	15.00	15.00	20.00	19.00	20.00	19.00
5 flush inlet heads for "B" inlets, includ. frame and cover, complete	18.00	15.00	15.00	22.00	20.00	18.75	1.50
2 depressed heads for "B" inlets, includ. frame and cover, complete	18.50	15.00	15.00	22.00	20.00	20.00	18.00
1 flush inlet head for "C" inlets, includ. frame and cover, complete	18.50	15.00	15.00	22.00	23.00	16.50	15.30
20 lin. ft. furnishing and setting curbstones, includ. dressing etc.	2.50	1.00	2.00	1.80	2.00	1.50	2.25
20 lin. ft. removing and resetting curbstones	1.50	.75	.50	.50	.50	.75	1.00
10 sq. yds. removing and relaying gutter and cobble pavement	.80	.50	.50	.50	.75	.50	1.50
5 cu. yds. stone masonry in Portland cement mortar	40.00	10.00	30.00	50.00	20.00	60.00	35.00
Total amount of bid	$37,400	$39,905	$44,306	$49,082	$50,690	$58,050	$79,263
Value of time required to complete contract, at $20.00 per day	$2,400	$1,600	1,500	2,500	3,000	3,000	4,000
Total for comparison	$39,800	$41,505	$45,806	$51,582	$53,690	$61,050	$83,263
Number of working days required for completion	120	80	75	125	150	150	200

REINFORCED-CONCRETE VIADUCT.—Lynchburg, Va.—Bids were received on Feb. 15 by the Joint Committee on Streets and Sewers for the construction of a reinforced-concrete viaduct at Fifth St. Itemized bids were as follows: (A) Stewart Contracting Co.; (B) A. W. McClay; (C) Lane Bros. Co.; (D) H. B. Odell; (E) Ohio Concrete Co.; (F) H. J. Collier Co.; (G) Lafferty & Weir.; (H) Carolina Engineering Co.; (I) MacArthur Bros. Co.; (J) William Tunny; (K) Tiffany & Gailt; (L) Scott Bros.; (M) Stanford Bros. & Ragland and E. T. D. Myers; (N) Curtis & Shumway; (O) R. M. Bibb; (P) John Ginder; (Q) B. B. McGhee & Co.; (R) Thiele Construction Co; (S) Jones & Adams; (T) Geanor & Caruthers; (U) R. J. Malone, Lynchburg; (V) Mathews-Curtis Co.; (W) Wisley & Brawley; (X) A. D. O'Brien; (Y) E. G. Nave Bros. Co.; (Z) Hall Craner Co.; (AA) Norcross & Edmonds; (BB) W. W. Lindsay & Co; (CC) Alsop & Pierce; (DD) Jenks & Dresser; (EE) G. B. Bennington. H. L. Shaner is City Engr.

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)
1,400 cu. yds. earth excavation	$1.40	$0.75	$0.60	$2.30	$1.50	$1.06	$3.00	$1.25	$0.75	$1.00	$1.87	$0.60	$0.60	$0.40	$2.00	$1.15
200 cu. yds. rock excavation	2.00	1.50	1.20	2.50	1.50	2.00	4.34	3.00	2.00	3.50	3.75	1.25	1.60	.60	2.75	3.45
220 tons steel bars	36.00	55.00	54.00	50.00	53.33	62.50	58.20	52.95	65.00	49.00	50.00	58.00	56.00	48.00	80.00	64.00
814 lin. ft. Wainwright corner bar	.20	.20	.24	.25	.24	.21	.23	.35	.25	.18	.35	.20	.20	.25	.30	.30
358 cu. yds. concrete, Class A	7.37	7.47	7.20	6.24	6.93	7.15	7.00	9.50	7.50	7.20	6.46	6.00	5.40	10.00	8.00	9.00
442 cu. yds. concrete, Class B	7.74	7.47	8.40	7.95	8.16	7.65	7.50	9.71	8.50	7.80	7.02	7.75	6.50	10.00	9.00	10.00
859 cu. yds. concrete, Class C	8.76	11.00	10.80	10.62	8.87	10.00	8.24	10.25	11.50	8.00	9.48	8.10	8.20	10.00	9.50	16.00
850 cu. yds. concrete, Class D	13.02	14.00	11.40	10.95	10.13	13.00	8.32	12.00	12.00	8.20	12.36	9.50	13.70	11.00	10.50	17.00
136 cu. yds. concrete, Class E	5.94	10.00	9.00	7.80	6.77	7.50	8.60	10.00	13.50	6.00	9.43	7.50	9.80	8.00	10.00	6.00
158 cu. yds. concrete, Class F	10.38	14.00	14.40	14.63	9.42	15.00	9.49	20.00	17.00	8.35	37.00	12.50	20.40	10.00	11.00	13.00
800 cu. yds. concrete, Class G	9.25	10.00	9.00	9.00	10.35	12.00	7.50	10.00	14.00	8.25	13.41	8.50	8.75	10.00	10.00	9.00
60 cu. yds. concrete, Class H	10.50	15.00	9.00	8.62	11.00	12.00	8.90	12.00	15.00	8.50	11.83	11.00	12.75	8.00	10.00	9.00
1,000 sq. ft. surface dressing	.22	.10	.12	.07½	.04	.08	.04	.15	.05	.10	.05	.01	.05	.03	.05	.20
50 lin. ft. cast-iron drain pipe	.46	.50	2.40	1.25	.64	.40	1.00	.55	.50	.60	1.00	.65	.35	1.00	.50	.75
814 lin. ft. electric conduits	.35	.15	.60	.25	.20	.15	.12	.25	.20	.15	.10	.16	.15	.15	.10	.20
16 lamp posts	20.00	16.50	18.00	15.25	15.00	15.00	10.00	10.00	22.00	16.50	30.00	20.00	7.00	20.00	15.00	15.00
1,040 sq. yds. brick paving	1.45	1.95	2.00	2.00	2.00	2.00	1.90	2.55	1.90	1.90	2.00	2.25	2.00	2.00	1.75	2.25
Total	$47,928	$55,940	$52,785	$52,856	$50,549	$57,638	$49,557	$57,414	$61,862	$44,631	$60,025	$47,907	$51,840	$51,134	$59,036	$66,050

	(Q)	(R)	(S)	(T)	(U)	(V)	(W)	(X)	(Y)	(Z)	(AA)	(BB)	(CC)	(DD)	(EE)
1,400 cu. yds. earth excavation	$1.25	$1.70	$1.60	$0.50	$1.00	$1.50	$1.00	$0.70	$1.00	$4.40	$0.50	$2.00	$1.50	$1.15	$0.75
200 cu. yds. rock excavation	2.00	3.50	2.50	2.00	1.00	2.00	1.00	2.00	1.50	5.17	1.00	3.00	1.50	2.50	1.25
220 tons steel bars	41.00	75.00	59.00	60.00	49.00	75.00	60.00	66.00	70.00	58.00	55.00	64.00	60.00	52.00	51.00
814 lin. ft. Wainwright corner bar	.20	.20	.20	.26	.15	.25	.25	.25	.02	.26	.20	.25	.22	.50	.20
358 cu. yds. concrete, Class A	9.50	8.00	6.50	5.38	7.10	7.00	6.00	8.64	7.50	6.93	5.60	5.15	6.50	7.25	5.40
442 cu. yds. concrete, Class B	9.50	8.50	7.94	6.68	7.10	7.00	6.50	9.11	7.50	8.45	5.79	6.25	6.75	7.50	7.15
859 cu. yds. concrete, Class C	9.50	9.80	8.75	7.60	7.10	9.00	7.00	12.93	8.26	9.34	6.47	7.80	8.00	9.00	7.15
850 cu. yds. concrete, Class D	9.50	10.00	9.50	10.00	7.10	14.00	9.00	17.44	9.00	14.65	9.06	9.80	11.25	10.00	9.00
136 cu. yds. concrete, Class E	7.00	9.00	11.20	6.43	7.10	12.00	12.00	12.99	7.00	7.28	6.26	8.65	6.50	11.00	8.50
158 cu. yds. concrete, Class F	9.50	11.00	14.50	13.50	7.10	16.00	15.00	18.13	10.00	12.05	13.00	13.65	10.00	10.00	9.50
800 cu. yds. concrete, Class G	9.50	9.50	9.14	8.05	7.10	11.00	10.00	10.48	8.00	9.75	8.88	7.70	9.45	8.50	9.50
60 cu. yds. concrete, Class H	9.50	9.00	9.65	9.63	7.10	8.50	12.00	13.34	9.00	11.80	8.33	12.00	9.67	10.00	9.50
1,000 sq. ft. surface dressing	.05	.15	.20	.10	.06	.10	.03	.06	.06	.064	.03	.07	.15	.06	.05
50 lin. ft. cast iron drain pipe	.36	.75	.65	.75	.75	.50	.50	.96	1.00	.74	1.55	1.00	1.89	1.50	2.00
814 lin. ft. electric conduits	.15	.11	.14	.15	.15	.35	.25	.18	.20	.128	.16	.20	.20	.40	.15
16 lamp posts	9.00	15.58	16.50	22.40	20.00	10.00	20.00	13.50	25.00	17.00	18.80	12.00	25.80	25.00	18.50
1,040 sq. yds. brick paving	1.59	1.85	2.20	2.02	2.00	2.00	2.50	2.07	1.80	1.18	2.10	1.80	1.75	1.50	2.00
Total	$47,779	$56,834	$51,914	$47,162	$41,120	$60,554	$49,588	$65,598	$49,878	$59,963	$44,217	$49,880	$50,768	$48,995	$45,043

MISCELLANEOUS CONTRACTS.

(Continued from page 81.)

to be removed and 143,695 ft. of 20 to 6-in. tile: Open work, per cu. yd.—Standard Drainage Co., Windom, Minn, 9.6 cts.; St. James Tile Co., St. James, Minn., 7.95 cts.; Sutcliffe & Bryant, New Ulm, Minn., 10.85 cts.; Fred. Koch, 9.93 cts.; Ferristol & Fryen, St. Paul, Minn., 9.7 cts.; W. A. D'Arcey, Dayton, Ohio, 9.7 cts.; Jerry Sherwood, Litchfield, Minn., 9.9 cts.; Hamlin Construction Co., Chicago, Il., 9.48 cts.; Monroe-Lorson Construction Co., Missouri Valley, Iowa, 11.5 cts.; Sweeney & Son, 10 cts.; NORTHWESTERN CONSTRUCTION CO., Bancroft, Iowa, 7 cts. (awarded contract).

Tile work—Ceylon Cement Co., Ceylon, Minn., $30,400; McCarron, Keil & Mickelson, Shubarn, Minn., $33,079; NORTHWESTERN CONSTRUCTION CO., Bancroft, Iowa, $35,554 (awarded contract).

*LIGHT-HOUSE FOUNDATION.—Wilmington, Del.—Bids are asked until 11 a. m., April 7, by the Light-House Engineer, Wilmington, Del., for completing the erection of foundation of light-house at Miah Maul Light-Station, Delaware Bay, N. J.

U. S. POSSESSIONS.

BRIDGE.—Philippines.—The bids for construction of the Moriones bridge in Tondo, were as follows: The Atlantic, Gulf & Pacific Co., Park Row Bldg., New York, $19,850; S. A. Reich, $19,864; Manila Saw Mill Co., $22,900; Delmar W. Smith, $32,290; Robert M. Loper, $32,400; Salvatore Brunetto, $24,800.

DRYDOCK.—Hawaii.—Bids were received Feb. 13 by R. C. Hollyday, Ch. of Bureau of Yards and Docks, Navy Dept., Washington, D. C., for constructing a concrete and granite drydock approximately 1,140 ft. long, 130 ft. wide and 35 ft. deep, at the Naval Station, Pearl Harbor, Hawaii. All bids have been rejected, and it is probable that new bids will be received when specifications have been revised. The lowest bid submitted was that of C. M. Leach, of Boston, Mass. C. M. Parks, C. E., U. S. Navy, is Engr.-in-Charge.

BOILERS, ICE PLANTS, ETC.—Philippines.—Bids are asked until 3 p. m., March 16, by William S. Patten, Depot Q. M., Whitehall St., New York, N. Y., for furnishing and delivering f. a. s. steamer at New York, boilers, ice plants, etc., for Manila.

The work covered by the specifications on boilers consists in furnishing all labor and material to furnish boilers, stacks, and fixtures, complete, f. a s. ship New York City or San Francisco (the point of delivery to be stated in proposal), two boilers with fittings, single settings, Camp Stotsenberg; one boiler with fittings, single settings, Camp Overton; two boilers with fittings, double settings, Camp Overton; one boiler with fittings, single settings, depot, Manila. The work covered by the specifications on ice plants consists in furnishing four complete ice making and distilling plants and four sets of tools for erection and maintenance and one set of special coils and headers as hereinafter specified, all delivered f. a. s. ships New York City or San Francisco (the point of delivery to be stated in proposal)—One plant, Camp Bumpus; one plant, Camp Stotsenberg; one plant and additional valves and piping, Camp Overton; one plant, depot, Manila.

EXAMINATIONS.

ELECTRIC METER INSPECTOR.—Albany, N. Y.—An examination is announced by the State Civil Service Commission on March 27 for the position of Electric Meter Inspector, Public Service Commissions, at a salary of $900 to $1,200 a year. Age limit, 21 years.

ASSISTANT STEAM ENGINEER.—Albany, N. Y.—An examination will be held on March 27 by State Civil Service Commission, Albany, for the position of Assistant Steam Engineer, State and County hospitals and institutions. Salary, $40 to $50 a month. Age limit, 21 years.

CHIEF ENGINEER.—White Plains, N. Y.—The State Civil Service Commission, Albany, will hold an examination on March 27 for the position of Chief Engineer, Westchester County court-house. Salary, $1,500 a year. Age limit, 21 years. This examination is open to legal residents of Westchester County only.

HIGHWAY INSPECTOR.—Albany, N. Y.—The State Civil Service Commission announces an examination to be held on March 27 for the position of Highway Inspector, State and County Service. Salary, $3.50 to $4.50 a day. Open to residents of all counties except Kings, New York, Queens and Richmond. Age limit, 21 years.

ENGINEERING MATERIAL PRICES.

TRACK FASTENINGS—

Pittsburg, f. o. b. cars—Angle bars, 1.65 to 1.75 cts.; spikes, standard sizes, 4½ × 9-16-in., at 1.70 cts. and smaller sizes at 1.80 cts. in carload and larger lots, with an advance of 5 cts. per 100 lbs. for less than carload, f. o. b. Pittsburg; bolts, square nuts, 2.65 to 2.75 cts.; hexagonal nuts, 2.80 to 2.90 cts.

RAILS, STEEL—

New York—at mill—New standard sections, $28; standard, second quality, $27 to $28; light sections, 12 to 14 lbs., $34 to $36. Per gross ton—Heavy melting steel scrap, $13 to $13.50; old steel rails, rerolling lengths, $15 to $15.50; relaying rails, $23 to $24; old iron rails, $18 to $18.50.

Pittsburg—Standard sections, at mill, $28; standard, second quality, $27 to $28; light rails, 25 to 45-lb. sections, $25; 20-lb., $26; 16-lb., $27; 12-lb., $28.

STRUCTURAL MATERIALS—

Pittsburg—f. o. b. mill—Beams and channels, 3 to 15-in., inclusive, 1.60 cts., net; I-beams over 15-in., 1.70 cts., net; angles, 3 to 6-in., inclusive, ¼-in. and up, 1.60 cts., net; angles, over 6 ins., 1.70 cts., net; angles, 3 × 3 ins. and up, less than ¼-in., 1.50 cts., base, half extras, steel bar card; tees, 3-in. and up, 1.65 cts., net; zees, 3-in. and up, 1.60 cts., net; angles, channels and tees under 3-in., 1.50 cts., base, half extras, steel bar card; deck beams and bulb angles, 1.90 cts., net; hand rail tees, 3 cts.; net; checkered and corrugated plates, 3 cts., net.

Chicago—at mill—Beams and channels, 3 to 15-in., inclusive, 1.78 cts.; angles, 3 to 6-in., ¼-in. and heavier, 1.78 cts.; angles larger than 6-in., 1.88 cts.; beams, larger than 6-in., 1.88 cts.; beams, larger than 15-in., 1.8 cts.; zees, 3-in. and over, 1.78 cts.; tees, 3-in. and over, 1.83 cts.

New York—at tidewater—Beams, channels, angles and zees, 1.76 cts.; tees, 1.81 cts.; on beams, 18 to 24-in., and angles over 6-in., the extra is 0.10 cts.

PLATES ANR SHEETS—

New York—at tidewater—Standard-sized plates—Sheared plates, 1.76 cts. to 1.86 cts.; flange plates, 1.86 cts. to 1.96 cts.; marine plates, 2.16 cts. to 2.26 cts.; fire box plates, 2.65 cts. to 3.50 cts., according to specifications.

Pittsburg—mill shipmnet—Tank plates, ¾-in. thick, 6¼ ins. up to 100 ins. wide, 1.60 cts., base; blue annealed sheets, No. 10 and heavier, 1.80 cts.; Nos. 11 and 12, 1.85 cts.; Nos. 13 and 14, 1.90 cts.; Nos. 15 and 16, 2 cts. Box annealed, Nos. 17 to 21, 2.25 cts.; Nos. 22 to 24, 2.30 cts.; Nos. 25 and 26, 2.35 cts.; No. 27, 2.40 cts.; No. 28, 2.50 cts.; No. 29, 2.60 cts.; No. 30, 2.70 cts.; galvanized sheets, Nos. 10 and 11, 2.45 cts.; Nos. 12 and 14, 2.55 cts.; Nos. 15 and 16, 2.65 cts.; Nos. 17 to 21, 2.80 cts.; Nos. 22 and 24, 2.95 cts.; Nos. 25 and 26, 3.15 cts.; No. 27, 3.35 cts.; No. 28, 3.55 cts.; No. 29, 3.70 cts.; No. 30, 3.95 cts.

IRON—

Pig Iron:

At New York—tidewater—

Northern—	
No. 1 X foundry	$16.50 to $17.00
No. 2 X foundry	16.00 to 16.50
No. 2 plain, foundry	15.50 to 16.00
Gray forge	15.00 to 15.50
Basic	16.00 to 16.75
Virginia—	
No. 1 foundry	17.10 to 18.15
No. 2 foundry	16.65 to 17.00
Basic	16.60 to 17.10
Southern—	
No. 1 foundry	16.75 to 17.25
No. 2 foundry	16.25 to 16.75
No. 3 foundry	15.75 to 16.25
No. 4 foundry	15.50 to 16.00
No. 1 soft	16.75 to 17.25
No. 2 soft	16.25 to 16.75
Gray forge	15.25 to 15.50
Mottled	15.00 to 15.25

At Chicago—f. o. b.—

Lake Superior charcoal	19.50 to 20.00
Northern—	
Coke foundry, No. 1	17.85 to 18.35
Coke foundry, No. 2	17.35 to 17.85
Coke foundry, No. 3	16.85 to 17.35
Scotch, No. 1	18.35 to 18.85
Southern—	
Coke, No. 1	17.85 to 18.35
Coke, No. 2	17.35 to 17.85
Coke, No. 3	16.85 to 17.35
Coke, No. 4	16.35 to 16.85
Coke, No. 1, soft	17.85 to 18.35
Coke, No. 2, soft	17.35 to 17.85
Gray forge	15.85 to 16.35
Mottled	15.60 to 16.10
Malleable Bessemer	17.35 to 17.85
Standard Bessemer	17.90 to 18.40
Jackson County and—	
Kentucky Silvery, 6%	19.90 to 20.40
Kentucky Silvery, 8%	20.90 to 21.40
Kentucky Silvery, 10%	22.90 to 23.40

At Philadelphia—

Eastern Pennsylvania—	
No. 2 X Foundry	$17.25 to $17.50
No. 2 Plain	16.75 to 17.00
Virginia—	
No. 2 X Foundry	17.25 to 17.50
No. 2 Plain	17.00 to 17.25
Gray forge	15.75 to 16.00
Basic	16.50 to 17.00
Low Phosphorus	21.00 to 21.50

At Pittsburg—

Prices all f. o. b. Pittsburg—	
No. 2 Foundry	$15.40 to $15.50
Gray forge	.... 14.50
Bessemer iron	16.90 to 17.15
Ferromanganese	45.90 to 46.40
Ferrosilicon	62.25 to 62.50

Cast-iron Pipe:

New York—Carload lots, net tons, 6-in., at tidewater, $24.

Chicago—4-in. water pipe, $27; 6-in. to 12-in., $26; over 16-in., $25, with $1 extra for gas pipe.

MISCELLANEOUS MATERIALS—

Copper:

Lake, 12.87½ to 13.12½ cts.; electrolytic, 12.50 to 12.75 cts.; casting, 12.37½ to 12.62½ cts.

Lead: New York, spot, 3.95 to 4.20 cts.

Spelter: New York, spot, 4.72½ to 5.15 cts.

Tin: New York, spot, 27.25 to 29.12½ cts.

INDUSTRIAL NOTES.

MR. E. E. BROSIUS, of Alliance, Ohio, has accepted the position of sales engineer with Pawling & Harnischfeger, of Milwaukee, Wis., builders of traveling cranes.

THE AMERICAN FIRE BRICK CO., Spokane, Wash., has given an order to the Minneapolis Steel & Machinery Co. for a 20 × 42-in. heavy duty Twin City Corliss engine which is to be installed in their new plant at Mica, Wash.

THE BOARD OF CONTRACT AND SUPPLY, of Rochester, N. Y., on March 3, 1909, awarded a contract to the Thomson Meter Co., Brooklyn, N. Y., for Lambert meters to cover the city requirements for the year 1909. Quantity required will be from 3,000 to 6,000.

THE STEEL PROTECTED CONCRETE CO., Real Estate Trust Bldg., Philadelphia, Pa., has recently issued a booklet of directions for laying the Wainwright Steel-Bound Concrete Curb as well as an aluminum desk paper weight similar in section to the steel corner bar which they will send to parties interested.

ANNOUNCEMENT is made that the Rockwell Furnace Co., of 26 Cortlandt St., New York, has purchased the factory, drawings, patterns, etc., of the Rockwell Engineering Co., and the business will hereafter be transacted under the name of Rockwell Furnace Co., Incorporated under the laws of the State of New York.

THE SOUTHERN PACIFIC RAILWAY CO. is installinfg 6,000 ft. of 6-in. machine banded redwood pipe with cast-iron collars at Santa Barbara, Cal, the pipe being manufactured by the National Wood Pipe Co., Los Angeles, Cal. This wood pipe is being laid in a salt marshy ground and will pipe water from the Hope Ranch to the station yards.

WORTHINGTON M. JACOBUS, civil engineer and surveyor, with offices at Rutherford, N. J., established 1888; and 62 Cedar St., New York, and CHARLES H. HIGGINS, C. E., Assoc, M. Am. Soc. C. E., have opened an office in the Commercial Trust Bldg., Jersey City, N. J., under the name of Jacobus & Higgins, Inc., for general civil and consulting engineering, and will continue the above mentioned offices.

THE STONE & WEBSTER ENGINEERING CORPORATION has ordered for The Seattle Electric Co., thirty (30) cars of the Seattle, single end, combination type with end and side doors. They are 47 ft. 8 ins. long over the buffers and have a seating capacity of 55 persons. The bodies are to be built by the St. Louis Car Co. and will be mounted on Standard Motor Truck Co. type C-50, double trucks, having General Electric No. 80, 4-motor equipments and General Electric K-28 J type control. National Brake & Electric Co. air brakes will be supplied.

For other Proposal Advertisements see pages 43, 44, 46, 48, of Advertisements and Construction News page 82.

MACADAM ROADS.

Alamance County, N. C.

Sealed proposals will be received by the Road Commission of Alamance County, N. C., at the Court House, Graham, N. C., until 3 P. M., April 5, 1909, for building about forty-five miles of macadam roads and fourteen short span reinforced concrete bridges in Alamance County. Roads will be graded to a width of about 28 feet and macadam will be about 10 feet wide. Plans, profiles and specifications will be on file at the Court House at Graham, N. C., and at the Engineer's office at Burlington, N. C., and copies of the specifications, forms of proposal, etc., may be obtained from the Engineer at Durham, N. C., by depositing $5.00, which will be returned on the return of specifications. No bid will be considered unless accompanied by a certified check for $5,000.00.

The right is reserved to reject any or all bids.

R. L. HOLT, Chairman.
D. A. WHITE, Secretary.
Engineer,
GILBERT C. WHITE,
Durham, N. C.

PAVING.

Springfield, Ohio.

Sealed bids will be received by the Board of Public Service, of the City of Springfield, Ohio, at the office of the Clerk of said Board, Room 5, City Building, until 12 o'clock noon of Wednesday, March 31st, 1909, for the furnishing of the necessary labor and material for the improving of Fountain Avenue, from High Street to Perrin Avenue (approximately 29,000 square yards) with asphalt, asphalt block, bitulithic, granitoid cement block, vitrified brick or block, wooden block or macadam, or obispo brand of California asphalt, in accordance with the plans and specifications therefor, now on file in the office of the Board of Public Service. All bids must be submitted upon blank forms which will be furnished upon application to the City Engineer.

Each bid must contain the full name of every person or company interested therein and be accompanied by a bond, with two sureties to the approval of the Board, in the sum of $1,000, or a certified check in like amount upon some solvent bank, as a guarantee that if the bid is accepted a contract will be entered and its performance properly secured.

The envelope or wrapper containing said bid must be plainly marked "Bid for the Paving of Fountain Avenue."

The right is reserved to reject any or all bids.

By order of the Board of Public Service.

WM. H. MAHONEY,
Clerk of Board.

ELECTRIC LIGHTING FRANCHISE AND CONTRACT FOR SALE.

Portsmouth, Va.

The City of Portsmouth, Virginia, will receive written bids until April 13, 1909, at 8 o'clock P. M., for purchase of a franchise and contract to light its streets, public buildings, residences, business houses, etc., and for furnishing electric power where required.

Each bid must be accompanied by a certified check to amount of $5,000; and the successful bidder is to furnish a satisfactory bond for $5,000 for faithful execution of contract.

Specifications for bids may be obtained on application to L. P. SLATER, City Clerk.

SEALED PROPOSALS will be received at the office of the Light-House Engineer, Wilmington, Del., until 11 o'clock A. M., April 7th, 1909, and then opened, for completing the erection of foundation of Light-House at Miah Maul Light-Station, Delaware Bay, N. J., in accordance with specifications, copies of which, with blank proposals and other information, may be had upon application to the Light-House Engineer, Wilmington, Delaware.

Situations Wanted

Superintendents, Misc., etc.

CONSTR. SUPT. & MGR.; specialty, reinforced concrete, expert on forms, treatment and bonding; technical education; broad experience and successful record. Address "X. B. 10," Engineering News, New York. 10-1t

FOREMAN wants position in charge concrete foundation, excavation, sewer, rock, water-works, general construction; go anywhere. Address "C. C. 10," Engineering News, New York. 10-2t

Miscellaneous Wants

Manufacturers' Representative

Member of A. S. M. E., expert in the designing and installation of Portland Cement Plants, Rock Crushing Plants, Coal and Ash Handling Plants, Elevating and Conveying Systems, and Mill Machinery. Desires to establish engineering and sales office in New York City, representing active machinery manufacturing company. Will consider proposition upon the following basis: All office expenses paid, together with nominal salary and commission, but prefer to finance office and operate upon a strict commision basis, or will arrange to purchase machinery in own name and assume entire responsibility of accounts. Address "Z. B. 10," Engineering News, New York. 10-1t

WANTED

2½ cu. yd. or 3 cu. yd.

Dipper for Dredge

medium weight and must be in good condition. No junk. State price and place. Address "B. B. 10," Engineering News, New York. 10-1t

FOR SALE

FOR SALE.

One seven ton

Kelly-Springfield Tandem Steam Road Roller

in fair condition. Cheap if taken at once.

Address W. B. HUTCHINSON & CO., Michigan City, Ind. 10-2t

Will sell for $1,200

Traveling Crane

Handles and transfers loads up to 15 tons over area 60 feet by 70 feet. Just the thing for bridge, boiler, beam or valve works.

GEO. S. GROESBECK,
20th Floor, 37 Wall St., New York. 10-1t

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